

International Abstract of Surgery

SUPPLEMENTARY TO

Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H. MARTIN M.D. Chicago

PROF. PAUL LECÈNE Paris France

SIR BRADFORD MOYNIHAN K.C. M.C. C.B. Leeds England

SUMNER L. KOCH M.D. Abstract Editor

Volume XVI

January to June 1918

PUBLISHED BY

THE SURGICAL PUBLISHING COMPANY OF CHICAGO

54 EAST ERIE STREET CHICAGO

1918

COPY COPY
THE SURGICAL PUBLISHING COMPANY
OF CHICAGO
9 3

CONSULTING EDITORIAL STAFF

GENERAL SURGERY

UNITED STATES DONALD C BALFOUR WILLARD BARTLETT FREDERIC A BISLEY ARTHUR DEAN BRYAN
JOHN F BINNIE GEORGE E BREWER WILLIAM B BRIN MADE DAVID CHEEVER H P CHISLETT ROBERT
C COFFEY T CREGGORY CONNELL FREDERIC J COTTON GEORGE W CRILEF WILLIAM P CUBBINS HARRY
CUSHING J CHALMERS DaCOSTA CHARLES DAVISON DANIEL N EISENDRATH J M T FINNBY JACOB
FRANK CHARLES H FRAZIER EMANUEL FRIEND WILLIAM FULLER JOHN H GIBBON W W GRANT M L
HARRIS A P HEINECK WILLIAM W HESSERT THOMAS W HUNTINGTON Jabez N JACKSON T STAFF
JUDD C E KAILKE ARTHUR A LAW DEAN D LEWIS EDWARD MARTIN PUDOLPH MATAS CHARLES H
MAYO WILLIAM J MAYO JOHN R McDILL STUART McGUIRE WILLY MEYER FRED T MURPHY S C
PLUMMER H M RICHTER EMILF RYNFORD H A ROYSTER CHARLES L SCUDDER M G SEELIG F J
SENEY JOHN L SUMMERS JOHN W TURNER GEORGE TULLY VAUGHAN JOHN R WATHEW CANADA T
W ARCHIBALD G E ARMSTRONG H A BRUCE I H CAMERON JASPER HALPENNY J ALEX HUTCHISON
FRANCIS J SHEPHERD I N G STAFF IRELAND H BRUNTON LACUS W SAMPSON HANDLEY SIR
ARBUHNOT LANT SIR GEORGE H MAHNS ROBERT MILNE SIR BERKLEY MOYNIHAN RUSHTON PARKER
SCOTLAND SIR HAROLD STILES IRELAND SIR WILLIAM IRELAND OF C WHIFLER

GYNECOLOGY AND OBSTETRICS

UNITED STATES FRANK T ANDREWS BROOKE M ANSPACH W E ASHTON J M BALDY CHANNING
W BARRETT HERMAN J BOLDT HENRY T BYFORD THOMAS S CULLEN EDWARD P DAVIS JOSEPH B DE
LEE ROBERT L DICKINSON W A NEWMAN DOPLAND E C DUDLEY HUGO EHRENTST CHARLES S ELDER
PALMER FINDLEY GEORGE GELLHORN J RIDDLE GOFFE BARTON C HERST HOWARD A KELLY FLORIAN
KRUG L J LADIN H T LEWIS FRANK W LYNCH GEORGE C MOSIER HENRI P NEWMAN GEORGE
H NOBLE CHARLES E PADDOCK REUBEN PETERSON JOHN O POLAK CHARLES B REED EDWARD REY
NOLDS EMIL RIES JOHN A SAMPSON F T SIMPSON RICHARD R SMITH WILLIAM S STONE FREDERICA
J TAUSSIG HOWARD C TAYLOR HIRAM M VINBERG W F B WAKEFIELD GEORGE G WARD JR J
WHITRIDGE WILLIAMS CANADA W W CHIPMAN F W MARLOW A C McILWRAITH B P WATSON
A H WRIGHT ENGLAND RUSSELL ANDREWS THOMAS W EDEN W E FOTHERGILL THOMAS WILSON
SCOTLAND WILLIAM FORDYCE J M MUNRO KERR IRELAND E HASTING TWEEDY AUSTRALIA
RALPH WORRALL NEW ZEALAND HENRY JELLETT SOUTH AFRICA H TEMPLE MURSELL INDIA
KEDARNATH DAS

GENITO URINARY SURGERY

UNITED STATES WILLIAM L BAUM WILLIAM T BELFIELD JOSEPH L BOEHM I W BREMERMAN
HUGH CABOT JOHN R CAULK CHARLES H CHETWOOD JOHN H CUNNINGHAM JR FRANCIS I HAGNER
ROBERT HERBST EDWARD L KEYES JR GUSTAV KOLISCHER BRANFORD LEWIS GRANVILLE MACGOWAN
LOUIS C SCHMIDT J BENTLEY SQUIER B A THOMAS WILLIAM N WISHARD HUGH H YOUNG ENGLAND
SIR J W THOMSON WALKER

CONSULTING EDITORIAL STAFF—CONTINUED

ORTHOPEDIC SURGERY

UNITED STATES I GILHARD A TTY NATHANIEL ALI N W SBER A ER H FREIBERG J EL
 I C LDT AT H WILF OR C E R F B I C RD W W PL 2 1 J H V I POR R J H RIDION
 I WIN W R DAW S I R CANADA A M C EN E FORBES HE B R P H CALVAY CL
 L ST I NCIAND S R RT J N R BE T O L R H A HARRY PL TT A H TUD Y

ROENTGENOLOGY

UNITED STATES J I T C A I CR C L I R T M HICK Y H N RA HLLST C FOR E C
 J I N S I F I A N C R F I F I H I I I P T CANADA S I E C L MIN ALFY
 A R H I R

SURGERY OF THE EYE

UNITED STATES F A L B N H D BR A D H H L F F D V D J A N T A C L N E
 WIL MC I B V I L JO L W EA C H D W IT W I I H W L D F C A E Y A
 W O H R W L N C I A N D J N B L A R W T H M S R SCOTLAND S R G E G E
 A B R A A M A R A M

SURGERY OF THE EAR

UNITED STATES I A W D M A A G D S T J I M A F V N R H P I R S M C
 C A S U T CANADA H S B TT I N G L A N D A R L R H C E A T L SCOTLAND A I
 T R I R I L A N D S I R I H W O D

SURGERY OF THE NOSE THROAT AND MOUTH

UNITED STATES J C B CK T M L F H R D E TROM J H R I C E I J A S V
 J F M CK T C F P M A R J N I D V N I I O S A U S T R A L I A A A J B R

ABSTRACT EDITORIAL STAFF

DEPARTMENT EDITORS

EUGENE H POOL GENERAL SURGERY
 FRANK W LYNCH GYNECOLOGY
 JOHN O POLAK OBSTETRICS
 CHARLES H FRAZIER NEUROLOGICAL SURGERY
 F N G STARR ABDOMINAL SURGERY
 CARLA A HEDBLUM CHEST SURGERY

LOUIS E SCHMIDT GENITO URINARY SURGERY
 PHILIP LEWIN ORTHOPEDIC SURGERY
 ADOLPH HARTUNG ROENTGENOLOGY
 HAROLD I HILIT SURGERY OF THE EAR
 L W DEAN SURGERY OF THE NOSE AND THROAT
 ROBERT H IVY PLASTIC AND ORAL SURGERY

GENERAL SURGERY

UNITED STATES GILBERT C ANDERSON FRANK B BERRY RALPH B BETTMAN I EDWARD BISHKOW
 WILLIAM A BRAMS JOHN W BRENNAN JAMES B BROWN WALTER C BURKETT HAROLD M CAMP FLORENCE
 CARPENTER BURTON CLARK JR GEORGE A COLLETT PAUL C COLONNA JOHN S COULTER ALBERT S
 CRAWFORD CHESTER L CREAN NATHAN N CROWN LAWRENCE CURTIS LEO M DAVIDOFF MARSHALL
 DAVISON ALBERT F DE GROAT J FRANK DOUGHTY CHARLES F DUBOIS HARRY W FINK JOHN H GAR
 LOCK MENA A GILDERSLEEVE CYRIL J GLASPEL RODEFICK A GRACE POSCOE R GRAHAM JEROME P
 HEAD C O HELMDAL RICHARD F HERNDON MARCUS H HOBART MERLE R HOON HERMAN H HUBER
 ROBERT H IVY LAWRENCE JACQUES MORRIS H KAHN SAMUEL KAHN J EDWIN KIRKPATRICK JACOB E
 KLEIN MANUEL E LICHTENSTEIN JOHN J MALONEY MICHAEL L MASON GEORGE R McALLIFF FRANK J
 MCGOWAN HOWARD A MCKNIGHT HERMAN O MCPHEETERS WILLIAM R MEELER STANLEY H MENTZER
 MAURICE MEYERS F S MODERN JACOB M MORA AUDREY G MORGAN WALTER H NADLER JOSEPH K
 NARAT LOUIS NEUWELT JOHN W NOZUM ALTON OCHSNER ERIC OLDBERG ANNA L PACE WILLIAM J
 PICKETT C S PLATT HENRY H RITTER D E ROBERTSON EMIL C ROBITSHKE HARRY C SALTZSTEIN
 ANTHONY F SIVA WILLIAM E SHACKLETON ARTHUR L SHREFFLER MORRIS A SLOCUM FRED W SOLLEY
 KELLOGG SPEED CARL R STEINAE PAUL W SWEET KARL H TANNENBAUM JOHN H WOOLSEY LEO M
 ZIMMERMAN CANADA ROBERT R GRAHAM WILFRID L GRAHAM R A B SNICK HAROLD WOOLKEY

GYNECOLOGY AND OBSTETRICS

UNITED STATES PHILIP H ARNOT T FLOYD BELL I EDWARD BISHKOW ABRAHAM A BRAUER BUR
 TON CLARK JR EDWARD L CORNELL ROLAND S CROW CARL H DAVIS ALBERT F DE GROAT SALVATORE
 DI PALMA CHARLES F DUBOIS HARRY W FINK SAMUEL J FOGELSON A H GLADDEN JR PETER GRAF
 FAGYINO ROBERT M GRIER BRUCE A HARRIS ALBERT W HOLMAN E L KING WALTER E LEVY HAR
 VEY B MATTHEWS ALICE F MAXWELL HILLIARD E MILLER J W NEWMAN GEORGE W PHELAN AN
 THONY F SIVA GOODRICH C SCHAUFFLER H VERNON SIMS DONALD G TOLLEFSON MAGNUS P URNES
 ALBERT M VOLLMER SAMUEL A WOLFE

ABSTRACT EDITORIAL STAFF—CONTINUED

GENITO URINARY SURGERY

UNITED STATES WILLIAM S. BAER WILLIAM J. CARSON JOHN G. CHATHAM JOSEPH S. FELSETHAED
 THOMAS F. FEGAN HARRY A. FOULFER LOUIS GROSS JACOB S. GROTE C. O. HEIMDAL ELMER HESS
 CLAUDE D. HOLMES J. E. V. KIRKPATRICK JAMES A. H. MAGOUN, JR. MAURICE MELTZER LOUIS NEUWELT
 ALTON OCHSNER CLARENCE R. O'CONNOR CLAUDE D. PEARL HENRY W. PLAGGEMEYER J. SYDNEY
 RITTER BENJAMIN F. RILEY HENRY L. SINFORD C. TRAVERS STEPHEN GILBERT J. THOMAS H. W. E.
 WALTHER

ORTHOPEDIC SURGERY

UNITED STATES ELLIOT J. BERNHARTER W. P. BLOUNT NORMAN C. BULLOCK WILLIAM A. CLARK
 PULCER COLON H. F. RECOVER ROBERT A. FANTON ABRAHAM J. GOTTLIEB CHESTER C. GUY
 GEORGE C. HENSEL FREDERICK A. JOSE DANIEL H. LEINTRA FORT C. LONGERGAN RUDOLPH
 REICH HENRY H. RITTER ANTHONY I. SASSA RALPH SOTO HALL S. C. WOLDENBERG

PHYSICOCHEMICAL METHODS IN SURGERY

UNITED STATES ADOLPH HERTING CHARLES H. HEACOCK ALFRED LARSEN

SURGERY OF THE EYE

UNITED STATES THOMAS D. ALLEN LYMAN A. COSS SAMUEL A. DURR CLARENCE McALIFF L. SLIE
 L. MCCOY VIRGIL WESCOTT

SURGERY OF THE EAR

UNITED STATES JAMES C. BRIDELL J. C. C. BUNCE GEORGE R. McALIFF W. M. PATON MAN
 FORD R. WAT

SURGERY OF THE NOSE THROAT AND MOUTH

UNITED STATES JAMES C. BRASLEY J. LAWRENCE CURTIS MATTHEW N. FIDERSPEL CHARLES
 W. FREEMAN ROBERT H. IVY GEORGE R. McALIFF W. M. PATON MANFRED R. WALTZ

International Abstract of Surgery

Supplementary to
Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H MARTIN Chicago
SIR BERKELEY MOYNIHAN KCMG CB Leeds
PAUL LECENE Paris

SUMNER L. KOCH Abstract Editor

DEPARTMENT EDITORS

EUGENE H POOL General Surgery	LOUIS E. SCHMIDT Genito Urinary Surgery
FRANK W LYNCH Gynecology	PHILIP LEWIN Orthopedic Surgery
JOHN O POLAK Obstetrics	ADOLPH HARTUNG Roentgenology
CHARLES H FRAZIER Neurological Surgery	HAROLD I LILLIE Surgery of the Ear
F N G STARR Abdominal Surgery	L W DEAN Surgery of the Nose and Throat
CARL A HEDBLOM Chest Surgery	ROBERT H IVY Plastic and Oral Surgery

CONTENTS

I Index of Abstracts of Current Literature	iii
II Authors	iv
III Abstracts of Current Literature	1 61
IV Bibliography of Current Literature	62 86

CONTENTS—JANUARY, 1928

ABSTRACTS OF CURRENT LITERATURE

SURGERY OF THE HEAD AND NECK

Head

- DÉCHAUME, M. and CONDAVIN, I. Depressed Fractures of the Anterior Wall of the Frontal Sinus
- PORTMAN, G. and DEBONS, J. Surgical Intervention in Infections of the Lateral Sinus and Internal Jugular Vein
- SCHAFER, A. J. and JACOBSON, A. W. Mikulicz's Syndrome. A Report of 10 Cases
- LENOIR, C. and DARCIS, M. Metallic Loops Through the Bone to Hold the Ascending Pterygoid in Fractures of the Lower Jaw. Their Use in a Case of Bilateral Retrodental Fracture
- SPRAWSON, F. Further Investigation of the Pathology of Dentigerous Cysts with a New Treatment Based Thereon

Eye

- FINNOFF, W. C. Dry Sterilization of Instruments
- KEY, B. W. Iodine Therapy in Iritis
- NOGUCHI, H. Type I Mental Studies of Trachoma
- ROENNE, H. On the Mechanics of the Squint Operation
- GRISCOM, J. M. Essential Atrophy of the Iris
- KIRBY, D. B. The Cultivation of Lens Epithelium *in vitro*
- PAVIA, J. L. and DUSSELDORF, M. Cataclastic Luxation
- LUDKIN, A. M. Bilateral Epipillary Vascular Loop of the Petal Artery
- WAGENER, H. P. and GIPNER, J. F. Arterial Spasm and Occlusion of Branches of the Central Artery of the Retina

Ear

- MAPRIOTT, M. C. Pediatric Aspect of Otolaryngology
- BARLOW, R. A. Does a Vitamin Deficient Diet Cause Deafness? Results of Animal Experimentation
- SHAMBAUGH, G. I. Explanation for the Symptom of Paracusis Willisii. A Demonstration
- LIERLE, D. M. Otitis Media in Infants
- DEAN, L. W. Acute Otitis in Infants. Its Influence on Certain Systemic Conditions and the Influence of These Conditions on the Method of Treating the Co-existing Acute Otitis
- CHAMMAN, S. J. Tuberculosis of the Middle Ear with Local Reference to Heliotherapy

- SIMMONS, J. B. Mastoiditis in Infants. A Report of 40 Operated Cases

Nose and Sinuses

- LAYTON, F. B. The Relation of Nasal Polyps to Inflammation of the Accessory Sinuses of the Nose
- NELSON, J. F. Meningitis of Nasal Origin. A Study in Surgical Anatomy
- LORTON, F. M. Frontal Sinus Empyema in Young Children with Several Case Reports
- THOMPSON, G. H. Malignant Neoplasms of the Antrum
- VLASTO, M. Meningitis of Sphenoidal Sinus Origin

Neck

- KESSEL, L. and HYMAN, H. T. Exophthalmic Goiter and the Involuntary Nervous System. VIII. The Course of the Subjective and Objective Manifestations of Exophthalmic Goiter in 50 Unselected Patients
- TROISIER, J. The Basedow Syndrome 6 Months after Treatment with Iodine: the Role of Heredity
- HART, V. K. Streptococcal Laryngitis. Report of a Case with a Very Late Complication

SURGERY OF THE NERVOUS SYSTEM

Brain and Its Coverings. Cranial Nerves

- NELSON, J. F. Meningitis of Nasal Origin. A Study in Surgical Anatomy
- VLASTO, M. Meningitis of Sphenoidal Sinus Origin

Spinal Cord and Its Coverings

- DELAGNIÈRE, A. Tumors of the Spinal Cord
- POIRIEAU, The Role of Lipiodol in the Surgery of Medullary Tumors

Peripheral Nerves

- BASSET, A. Injury of the Upper Roots of the Brachial Plexus During a Laparotomy with the Patient in the Trendelenburg Position

Miscellaneous

- IRVING, W. The Encapsulated Tumors of the Nervous System. Meningeal Fibroblastoma, Fibroblastoma and Neurofibroma of von Recklinghausen

SURGERY OF THE CHEST

Chest Wall and Breast

KIP J G B d f mtl N I I
 GRAS J A St ly f th M I t B t ly
 Wh l S t d K v B k s t M d I
 SCIT D a l ORBA C P T t n t f
 Ca f th B t th a l t l ut S I
 s q nt Ro t k F t m t

Trachea Lungs and Pleura

LIBERT F d B ET M l d m l l th
 I t t o f a l l j t I L p d l
 KL Z O C c f t l I u k d I p t p
 4 C
 K RN C K A C f l r m v C n m I th
 Eff Sh B t A t l I I l I
 H y I T L d H f C W T l I n t h n
 l I A p t f I m v m f th l ng

Heart and Pericardium

WIN v N d S I V M I I
 tomj f P v p d u V l f th
 L t C t M v d I p t I
 N C s

Esophagus and Mediastinum

M R I Th P tholo y f E ph g l a (D
 I at of th E h g w th t A at m f
 St n t th C d O b e)
 W a W W Thym St d
 REM R J d B L R N W W K t g D k
 d The p f th Th m n Ch I f

Miscellaneous

Hi C J F r t l I p th I t th i
 T m
 M L L G t I I D f j v I T
 T h j f Re t I th I t T I b
 by th I t l t f S l c p f l t

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

D W V C P r t t I p m t l St d y

Gastro Intestinal Tract

A RFZ W C Th T t m t f \ r I
 d est
 RO N O V A P A C f l r f t I G st c
 U J I o v f
 D s St J W A t l f t f C t d
 D u d I U I
 ABADIE J T l l l u d ed G t t f U l f
 the St m ch o a f Wh h W r P l c tom
 ODELC C A P m R c t f th St m h
 L e r f o t G G t d Du l n I U I
 PERSSON M F I Result f G t l R ect
 f C ncer

D N H B I h St tu f G t Int t my n
 C t S K v
 C u r A P I f f t f B l l th I l l e t f
 th St m h on th f n t d Struct of
 th I a c and on I t t l l b rpt
 I r I J I t t l e f t l Sm l l and La ge I
 test n
 M c t l Sp I A x th I t t l O
 d o

I A N F A S j n I A x thes A ut II
 VANLAN T B nd O K I N v C J Sp n l A
 e d e s a d l l u
 I c r Sp a l A x th I t e t l O cel
 D u v P Sp l A x thes A t l l u
 C t I Sp l A x th I
 I R t R J W a d G t s I A D t u l
 d D p l t u f th D d m w th R f
 t th Imp r t e f Ch l y t t th
 I l u t n f Sympt m
 I R I C I f t l U r s f t l D l
 m

I r R C P f t d D d l U l a
 C l d A f A g G t d d l R e e
 t l y
 S E R v W A N p l m f th I l e o v l l
 3 M L W l C B R t W B C R N W T O
 S I R C R t I I d O th D
 u C l t m

Br G t Th Sympt m t o l y d D
 f C f th L g l o l
 3 S T V l H B Th I t r p t n f Sm l l B w el
 S e m t l t w d d d l f th C l
 4 I v t J M I l p f the R c t m
 4 I H l H Th T m t f Ca m of th
 R t a l y I d t
 I r r D B Th I c p l U d l y th
 S g v l C m f th R c t m

Liver Gall Bladder Pancreas and Sple

H t W P t l C h t A t n d It
 S g l T t m t A R f z b C s e s
 H R I A Th l p t y g f th G l l Bladd r
 A l p m t l St d y
 K R L L B l d K N I C A N w l o d
 C m p f C l l y t p h y
 B y W S o m P t th I th l y f th
 G l l B l a l d
 6 O t H R S p t P p t f th G l l
 H d d r to th D o d m
 J u P S a d M e z r s H Ch l e t o f the
 G l l B l a d r
 6 H R L J S J r A l x p m e n t l St d y f
 Ch o l y t g t o t m y d Ch l y t o d o d
 t m y
 6 D B I C Ch l y t t t m y
 6 S I J l Th Imp o t r n t S u g r y f th
 C t D t
 I A C M E t l P t e S e e r t
 D E S A B d R B J l l u p t r f
 7 P t H a r m t c l e to th I t l l
 C a t y
 S I E G E L I A L I u c t i o n P a y

1 US S and SCOTT G M The Action of Iron Seeds on Tumor and Liver Cell of the Rat

Miscellaneous

BEGG R C The Urachus and Umbilical Fistulae
TRUESDALE P F The Thoracopentoneal Operation for Hernia of the Diaphragm

GYNECOLOGY

Uterus

SHAW W I Wertheim's Hysterectomy for Carcinoma of the Cervix

Adnexal and Peritoneal Conditions

SHAW W I Ovarian in the Human Ovary Its Mechanism and Anomalies

Miscellaneous

JOHNSTON F W Developmental Changes During Adolescence
IATON J H P Influence of the Genital Health on Menstruation
CLOW A I S The Prevention of Menstrual Troubles
CHATILLON F Sterility of Uterine Origin Diagnosis and Treatment
DOLAN E Sterility of Tubal Origin Diagnosis and Treatment

OBSTETRICS

Pregnancy and Its Complications

SIEGEL I A Further Function in Pregnancy
PIEASON R N Fibromyomata and Pregnancy a Study of 50 Cases
HOFBALER J A Study of an Undescribed Type of Premature Separation of the Normally Implanted Placenta
WILSON J S G Three Cases of Rupture of the Uterus at the Site of a Previous Cesarean Section

Labor and Its Complications

HEWITT J TOWART D and BAIRD D The Relative Merits of the Instrumental and Medical Methods of Inducing Labor
GIBBERD G F An Investigation into the Results of Beech Labor and of Oxytocic External Cephalic Version During Pregnancy with a Note on the Technique of External Version

Miscellaneous

WATSON B I The Responsibility of the Obstetrical Teacher in Relation to Maternal Mortality and Morbidity

GENITO URINARY SURGERY

Adrenal Kidney and Ureter

ILGUEI FRY and PALAZZOLI The Motility of the Renal Pelvis Studied in the Freely Excised Kidney

PERRIN W S A Normally Placed Right Kidney Possessing 2 Pelves and 2 Ureters Opening Separately into the Bladder the Center Part of the Kidney Between the Pelves Being Occupied by a Grawitz Tumor

PERRIN W S An Ectopic Kidney with a Triple Ureter Removed from a Man Aged 41 Years

HILLSTROM J Contribution to the Knowledge of the Pathology of Hydronephrosis

MARTIN LAYAL and PASTEAU Small Painful Hydronephrosis Enervation of the Kidney and Nephropexy Late Results

DARGET R Recurrent Hydronephrosis in a Patient Operated upon for Renal Ptosis—Bifid Ureter

TAKAHASHI A The Health of a Patient 20 Years After the Removal of a Tuberculous Kidney

HUNT A C Papillary Epithelioma of the Renal Pelvis

QUINBY W C Plastic Surgery of the Renal Pelvis

ANDRE P Bilateral Ureterotomy for Calculus in a Young Child

STULZ F and STRICKER P Eight Cases of Suprarenalectomy in Juvenile Endarteritis Obliterans and Buerger's Disease

Bladder Urethra and Penis

PILLET The Lithogenic Action of Staphylococci by the Precipitation of Crystals of Ammonium Magnesium Phosphate in the Urine

PAPIN I and MICHON L Iliac Ureterostomy of the Remaining Kidney in Tuberculosis of the Bladder After Nephrectomy

TAKAHASHI A The Early Diagnosis of Pedicled Villous Cancer of the Bladder

MORSON A C The Treatment of Vesical Carcinoma by Radium Irradiation

CHALVIN L Double Urethra Particularly the Posterior Varieties

NICHOLSON B B Urethral Diverticula

Genital Organs

CASARIEGO A G Prostatotomy in the Treatment of Urinary Retention in the Course of Acute Gonorrheal Prostatitis

WILDBOLZ H The Indication and Execution of Prostatotomy

TROELL A Prostatotomy—Some Remarks About the Indications Technique and Results

IBRAHIM A B The Relation of Funiculitis to Hydrocele in Egypt

STRICKER P and IRANCA A Multiple Fibromata of the Tunica Vaginalis

WESSON M B Backache Due to Seminal Vesculitis and Prostatitis

WALKER K M The Treatment of Genital Tuberculosis in the Male

Miscellaneous

- REBELLION P The Lat nt Go ocoocus a d
Sp mo ultu
- IBANK I C d DIM d I Th Employ
ment f Pola Body D elop s St of the
(o cc the T atme t of G ccal
Inf ction
- BOYSFORD M E RIGH TI E a d J IN \ C M
A æ thes n U l gical s gcy

SURGERY OF THE BONES JOINTS MUSCLES
TENDONS

Conditions of the Bones Joints Muscles Tendons Etc

- SACAMORE L K a d HOLMES G W Endoth hal
Nj l ma (Ew T m)
- RO LANDS M J Phe m toid A th ts Is It a
D ßc cy D se?
- CAREY E J Th A t my Ph lgy a d A
om l s of the Sp n

Surgery of the Bones Joints Muscles Tendons Etc

- IRATT M The Impo t nce of the Junctu æ Ten
d m l s o s f th F te r Tendon f
the Fingers
- RYERSON L W Lam tomy
- JOSSERAND G a d POUZER F Late R s lts
f Atyp cal Ta ctom s Diffus f be cu
l sis of th P ste o Ta s n Child en
- IEB C A H Phys cal Th rpy a d lts R l tion
t Orth ped c Surgery

Fractures and Dislocations

- KLEINSCHMID A V w Meth d of T at b Pse d
th ose
- COTTON F J A tific l Imp ct o Hp Fr ctur s

SURGERY OF BLOOD AND LYMPH SYSTEMS

Blood Vessels

- LORT A N G nd DESPONS J S rg l it
ntion n Inf ct o s of the Lat l Sn and
Int n l f gul v
- AUDIN A M Blat l Pr pap llary v ul
L p of the R t al Art ry
- WAGENER H P a d GIPNE J F A ten l Sp sm
nd Occl o f B che of tl Ce tal Art ry
f th R tin
- VILL I E d MOUCHER An m of tl E
t m l lla Art ry w th I ap d E lto E
t r p t f th S c Aft H h l g ation f th
Art ry L tel ct o l Res lts
- CHOLSON B B Van e ve Et logy d
Tr tm t A Clin la d f f t l g cal St dy
- MESEN A I j ct n T tm nt of v r v
and Th S qu lre n th B s f s T t d
Ca
- BERNSTEN A Va ces of th L g E pecially f om
th P nt f v w f Et lgy and S rg cl
Tr tment

- ALLEN E V d BROWN G F F onous Da
nos of R y ud s D s e Oblt atu e
v c lar D s s (Th mbo An tis Oblit)
IV omoto D t rh ce Sm l t l aynaud
D ea e II Th ombo v g t i Oblt ra f
th lo er L t em t i w th l l t g I ed l
Arte s
- SEIZ C a d STRICKER I I ht Ca f S
p al ct my n J n le Enda te it i Oblt er
a s a d Bu ge s D a e
- LL T L L at of th f mo al A tery B low
the On n f th P ofu da f mo in the
Treatme t of Oblit ativ E da terit f the
L g

Blood Transfusion

- SIMBURY J B Ta fu 10 in Childhood

SURGICAL TECHNIQUE

Operative Surgery and Technique Postoperative Treatment

- FLANOFF W C D y Ste iliz t ion f I trume t
- Anæsthesia
- MACLAIRE Sp l Anæ thes a i I testin l Oc
clus ion
- LAPOINTE A Sp l Anæsthes in Acute II
- VANLANDE BOPPE a d OKENC J Sp l A
æ th a d lleu
- PIROT Sp nal Anæsth i f test al O clu o
- DUVAL P Sp l A æsthe n Act l l e s
- GUIRAL P Sp nal Anæsthes a n lle
- BOYFORD M E RICHETTI E nd JON SON C
M A æ th s a n Uolo c l S rg ry
- SCHMIDT H Nitro Oxide Anæsthes a G m y

PHYSICOCHEMICAL METHODS IN SURGERY

Roentgenology

- ROINEAU Th Pól f L p dol th Sug ry f
M dull ry Tum r
- SCOUTE D d ORBAA C Th T tm t f
C c of the B t ith a d ith ut S b
s q nt K tgn T e tm t
- LER E nd B l ETY M I d m I ll w g the
I t h ncu II j to f L pod l
- HIDE T L d H ES G W Th Ro ntg
l al A p ts of P um ry T m of the L g
- KENE J a d BELD N W W Roe tr D o
a d Th apy f th Thymus Child
- KIRKIN B P nd KENDALL E C A New I d e
C mpo d f r Chol yst r phy
- BORDIER II Th v lu of Dath my n th T t
m t f R tgn U lcerat n
- WINTZ H L The Act n f the \ R y th
E d c e Glands

Radium

- BOWI G H II Th T eatm t f C om of
the Re tum by I d t

MORSON A C The Treatment of Vesical Carcinoma
by Iodine Irradiation

JONES S and SCOTT G M The Action of Iodine
Seeds on Tumor and Epithelial Cells of the Fat

Miscellaneous

CHAPMAN S J Tuberculosis of the Middle Ear
with Special Reference to Heliotrapy

MAYLE R The Fundamental and the Clinical As-
pects of Iodine Treatment with Especial Re-
lation to Tuberculosis

DORE E ODDY H M FIDINOW A GAVIAN
SIR H and Others Discussion on the Uses
and Limitations of Ultraviolet Light Therapy

MISCELLANEOUS

Clinical Entities—General Physiological Conditions

JOHNSTONE P W Developmental Changes During
Adolescence

PATON J H P The Influence of the General Health
on Menstruation

CLOW A L S The Prevention of Menstrual Trou-
bles

STONE W S and CRAWFORD L I The Colloidal
Iodine Treatment of Malignant Neoplasms

General Bacterial Protozoan and Parasitic Infections

BRUN P G The Respective Value of Certain
Clinical Signs and Certain Laboratory Ex-
aminations in the Diagnosis of Echinococcosis
According to the Findings in 250 Cases Treated
Surgically

Ductless Glands

WINTZ H L The Action of the Adipose on the
Endocrine Glands

Surgical Pathology and Diagnosis

FRASER J A Study of the Malignant Breast by
Whole Section and Key Block Section Method

WATT J C The Deposition of Calcium Salts in
Areas of Calcification

AUTHORS

OF THE ARTICLES ABSTRACTED IN THIS NUMBER

- Abadie J 17
 Allen E V 54
 Alvarez W C 16
 André I 40
 Bard D 36
 Barbellion P 4
 Baréty M 11
 Barlow R A 5
 Bas et A 10
 Be g R C 31
 Belden W W 4
 Be nsen A 5
 Boppe 19
 Bordier H 58
 Botsford M E 46
 Bowin H H 25
 Boyd W 27
 Brenner F C 1
 Brndley G A 23
 Brown G E 54
 Brun R G 60
 Carey E J 45
 Casariego A G 4
 Chapman S J 6
 Chatillon F 33
 Chauvin F 4
 Ciminata A 6
 Clow A F 5
 Condamin F
 Cotton F J 6
 Craver L E 60
 Dan ey St J W 1
 Darcissac M
 Darget I 9
 David A C 1
 Dean L W 6
 Déchaume M 1
 Dela émière A 9
 Desjardes R 1
 Desplas B 30
 De pon J
 Devine H B
 Diamond L 45
 Dore E 55
 Douay F 33
 DuBo e F G 28
 Dusseldorf M 4
- Du al I 21
 Edmow A 56
 Elliot J Jr 8
 E J 35
 Finnoft W C 3
 Franck A 44
 Fra e J 11
 Freiberg A H 49
 Gabriel W B
 Gau ain Sur II 5
 Gibbe d G F 36
 Gipper J I
 Gondon Wat on S I C
 Graham F A 2
 Griscom J M 4
 Guital P 1
 Hamrick R A 6
 Hart A K 8
 Helli ton J 39
 Heuer G J
 Hewitt J 36
 Hofbauer J 3
 Holme C W 1 4
 Ho sley J S Jr 5
 Hughson W 26
 Hunt A C 39
 Hyde T I 2
 Hyman H T 7
 Ibrahim A B 44
 Ivy A C 30
 Jacobsen A W
 John on C M 46
 Johnstone P W 3
 Jude F S 8
 Kendall E C
 Ke el L 7
 Key B W 3
 Kirby D B 4
 Krlin B I 7
 Klein chmidt 49
 Klotz O
 Kopp J G
 Kornblum K 12
 Lamkin E C 45
 Lapointe A 19
 Larimore J W 21
 Layton T B 6
- Le neu 35
 Le normant C
 Libert I
 Lierle D M
 Lupton J M
 Lynch J M
 Mallet-Cuy P
 Marriott M K 5
 Martin Ia I 5
 Maucelar 9
 Mayer I 5
 Mei n A
 Mntzer S II 5
 Mi hon F 40
 Miles W I
 Moore I 3
 Morson A C 41
 Mouchet 5
 Neill T E
 Nelson I F 1
 Nichol on B I 4
 No nchi H 3
 No -Jo erand C 17
 Oddv H M 54
 Odelberg A
 Okinczyk J 9
 Obaan C 11
 Ow n H R 8
 Pala zoli 38
 Lápín I 4
 Pasteau 30
 Laxon J H I 3
 Pavl J L 4
 Ientfield W 6
 Pe in W S 38
 Ier son M 17
 Pfeiffer D B 6
 Picot 19
 Pie son I N 3
 Pillet 40
 Io tmann G
 Pototchni G 1
 Pouzet F 49
 Patti M 48
 Qu nby W C 40
 Reine J 14
 R ehetu F 46
- Robineau 9
 Robin on A P 16
 Roenne H 4
 Roux Berger J I 30
 Rowlands M J 4
 Rowland R I
 Russ S 58
 Ryer on F W 49
 Schaffer A J
 Schmidt H
 Schoute D 1
 Scott C M 58
 Shambaugh G I 5
 Shaw W 3
 Shaw W F 3
 Sherwood W A 2
 Shipley A M 3
 Sidbury J B 6 55
 Siegel I A 35
 Sp awson E
 Stone H B 4
 Stone W S 60
 Stricker L 44 54
 Stulz I 54
 Sweet J I 29
 Sycamore L K 4
 Takahashi A 39 40
 Thompson C H
 Towa t D 36
 Troell A 44
 Fousier J
 Truesdale P E 3
 Vanlande 19
 Villechal e 52
 Vlla to M 9
 W a ener H P 5
 Walker K M 45
 Wasson W W 4
 Wat on B P 36
 Watt J C 6
 Wes on M B 45
 Wildbolz H 42
 Wil on J St G 36
 Winslow N 3
 Wintz H I 60
 Y dkin A M 4

EDITOR'S COMMENT

TO readers of this journal it is hardly necessary to emphasize the importance of Fraser's study of malignant disease of the breast which appeared in the September issue and which is briefly abstracted on page 11. With the aid of whole sections through the breast and of paraffin sections of many different areas of the breast tissue Fraser studied the vaginal the senile and malignant breast with particular reference to the epithelium in different activity of the parts of the glandular system to the types of tumor growth present and to the manner of dissemination of cancer cells. That different types of tumor may be found in the same breast that dissemination of cancer cells by way of the lymphatics takes place primarily through a central group of lymphatics which pass vertically to the lymphatic and then extend centrifugally and that the duct system is an important route of dissemination of cancer cells are a few of the important facts stressed in Fraser's paper. To the surgeon interested in the subject of mammary carcinoma this paper cannot help but prove stimulating and valuable.

Winslow and Shiple's report of ten cases of pericarditis myocarditis pericardium and review of 118 cases from the literature (p. 13) emphasize the possibility of successful surgical treatment in a form of infection frequently considered as hopeless. The cause with which the pericardium may be exposed by the parathyroidectomy the tolerance of the heart for drainage tubes in the pericardial sac and the irrigation of the sac and the importance of recognizing the presence of a pleural effusion in a patient with the pleura during operation are some of the important points emphasized in this interesting paper.

A number of papers relating to various phases of gastrointestinal surgery abstracted in this month's issue of the ABSTRACT are worthy of special mention. Ellis's review of the causes and

treatment of intestinal fistulae (p. 18) and the discussion following his paper are helpful contributions on what is frequently a difficult surgical problem. The reports of Mauclair (p. 19) of Lapointe (p. 19) of Vanlande Boppe and Okinczyk (p. 19) and of Picot (p. 19) upon the use of spinal anesthesia in intestinal obstruction help to answer the questions which have arisen in the minds of those who have read the somewhat conflicting reports of the results obtained from the use of spinal anesthesia in acute ileus. The authors mentioned stress the possibility of fatal toxic absorption when a considerable quantity of retained intestinal content is suddenly released by relaxation of the obstructed bowel the possibility of the further reduction of the blood pressure in cases in which it is already near the danger point and the false security engendered by evacuation of intestinal contents in cases in which the cause of obstruction still remains. The discussion by Miles Gabriel Gordon Watson Lowlands and others on colostomy (p. 22) the experiments of Stone (p. 4) on the substitution of small bowel segments for large and the resume by Feiffer of the principles underlying the surgery of carcinoma of the rectum (p. 6) are helpful contributions on the technique of the surgical treatment of pathological conditions involving the large bowel.

The experimental studies of Noguchi on the gall bladder (p. 3) of Hanrick on the emptying of the gall bladder (p. 26) and of Ivy on the external secretion of the pancreas (p. 30) Pierson's clinical study of 50 cases of pregnancy complicated by fibromyoma and Cotton's recommendations as to the treatment of fractures of the neck of the femur by artificial impaction (p. 50) are a few of many other important papers abstracted in this month's issue of the INTERNATIONAL ABSTRACT OF SURGERY.

INTERNATIONAL ABSTRACT OF SURGERY

JANUARY 1928

ABSTRACTS OF CURRENT LITERATURE SURGERY OF THE HEAD AND NECK

HEAD

Dechambre M and Condamin F Depressed Fractures of the Anterior Wall of the Frontal Sinus (1) *Ann Chir* 1927 1 (1)

Depressed fractures of the anterior wall of the frontal sinus occur more frequently in males than in females and are usually due to direct trauma caused by firearms, spikes, falls, blows or kicks. There may be damage to the supra-orbital nerve, dura, brain, venous sinuses, walls of the orbit, frontal or oculomotor nerves, submaxillary sinus, ethmoidal sinuses, nasal cavity or frontonasal duct.

The symptoms may be slight, but the location of the lesion and the associated deformity may suggest the diagnosis. A diagnostic sign of importance is prolonged unilateral epistaxis. There may be slight oedema of the eyelid, periorcular ecchymosis and crepitation. Subcutaneous emphysema is not very common but is a valuable sign. The escape of cerebrospinal fluid occurs only when there is injury to the dura. As a rule there is no loss of consciousness at the time of the injury.

If treatment is not given a pneumatocele, sinusitis, osteomyelitis or suppurative with nasal complications may occur. It is difficult to develop if the skin is broken. Other possible complications are pachymeningitis, meningitis and cerebral abscess. The prognosis is usually good but depends upon the time at which treatment is given. Late complications may occur.

The treatment is simple. It should be given for all injuries regardless of their surmised extent. In the authors' cases an incision is made over the sinus and all bony spicules and foreign bodies are removed. The whole sinus and the frontonasal duct are then explored. Closure is effected without drainage but in some cases a pack may be left in for forty-eight hours. Few or no dressings are applied. Pressure on the wound must be avoided. If a depression persists after this treatment a graft of fat

or an osteoperiosteal graft may be tried. Metal and rubber plates are to be condemned.

If complications (sinusitis, fistula, etc.) develop after the operation the wound should be re-opened and a search made for the source of the trouble. If the frontonasal duct is closed an attempt should be made to open it. If this fails some operative measure such as the Ogston, Luc or Guisez procedure may be tried or an attempt made to obtain fibrous obliteration of the cavity.

A number of cases are reviewed from the literature and three new cases are reported.

MICHAEL I. MASON, M.D.

Portmann G and Despons J Surgical Intervention in Infections of the Lateral Sinus and Internal Jugular Vein (1) *Ann Chir* 1927 1 (1)

The history of surgical operation in phlebitis of the lateral sinus and internal jugular vein is reviewed since Zaufal first practiced ligation, lavage and drainage of the internal jugular in 1880. In the authors' operation the first stage is a mastoidectomy and the second stage is incision and curettage of the lateral sinus. An incision is made along the anterior border of the sternocleidomastoid beginning at the hyoid bone and ending a finger's breadth above the clavicle and a double ligature is applied to the internal jugular below the area of phlebitis and below the thyrohyoid trunk if it is thrombosed. The lacerated foramen is then trephined through the mastoid incision, the bulb of the jugular being exposed. The mastoid and carotid incisions are then united, the whole trunk of the jugular to the bulb being exposed and the vein is sectioned between the two ligatures. The resected fragment is from 7 to 8 cm. long.

On the completion of the resection the bulb is tamponed with iodoform gauze and a drain is introduced and brought out at the lowest point of the wound.

After the operation the wound is irrigated with physiological salt solution and dressed every second day. If there is too much suppuration Dakin irrigation is done every three hours.

The results of the operation are good. A case is reported in detail. Re-creation of a part of the jugular does not seem to have any serious effects than simple ligation. The author is unable to avoid section of the external branch of the parasympathetic but it did not cause any symptom. There was little atrophy of the muscle. Electrical examination showed that motility was not completely abolished. The aesthetic result was good, the scar was almost exactly in the carotid groove and did not show very distinctly.

The treatment of the phlebitis of the internal jugular vein is strictly surgical and operation tends to become more and more radical. The object is not simply to drain the focus of infection but to remove it.

WDR 1 (M 4 M D)

Sci after A J and Jacob en A W M kul z s
Synd ome A Report of 10 Cises 17 J D
Ch l d o

The authors request to call attention and supplement them by photographs of several of the points.

[illegible]

The 4 other patients must be classed as suffering from Mikulic's case proper as no definite logical agent could be discovered. 1 of them 11 of the possible causative factors are left exclude. The 3 others a limited syphilitic infection had caused the primary infection not positive Wassermann reaction of the blood serum at the time of examination. Syphilis as present also in the other 2 faults the patient with lymphosarcoma having a positive Wassermann reaction and the fault with leukaemia giving a definite history of the infection. However in the present state of our knowledge it seems to us to be some that syphilis was the cause of the syndrome of these 4 patients. 1 has not recovered and died of pneumonia shortly after admission to the hospital. With regard to the other 2 no information is obtainable. Material for pathological study was obtained in only 3 of the cases.

In the cases in which histological factors can be found with any degree of assurance—those of so-called Mikulicz disease—the pathological picture is of 2 types. There may be either an increase in the lymphoid elements in the gland—diffuse in small aggregations or both—or a hyperplasia of the connective tissue elements with ultimate diffuse

scarring. The latter is considered by many to be the end stage of the former.

The authors discuss Howard's and von Brunn's classifications but suggest dividing the conditions into 2 large groups: a symptomatic and an idiopathic as follows:

1 Mikulicz disease (a) familial (b) Mikulicz disease proper

Mikulicz syndrome (1) leukaemia (b) tuberculo (c) lymphoma (d) lympho sarcoma (e) tox (leukodermia etc) (f) gout (?) and (g) febrile parotitis sub chronica

CARL B STEINKE MD

Le mant C and Darcissac M Metall c Loops
 Through the Bone to Hold the Ascend
 R ml n Place in Fractu es of the Lo er Jaw
 Their Use in a Case of Bilat r l Retrode tal
 F acture (L p d de mét liq e trans
 f r t c te t de ba che mo
 t t s d l s f ct d vill f ue s
 t pl t d n n s d f ct e d uble rétro
 d t d l mach f r c) B ll et mêm
 So t d cl 9 7 l 5 3

The method described was used in a case of bilateral fracture of the lower jaw back of the teeth in a middle-aged male who sustained the injury in a fall from a bicycle. The horizontal part of the lower jaw containing the only 6 maxillary teeth had fallen forward so that the direction of the teeth was horizontal. On the right side the fracture was at the angle of the mandible and on the left side at the mental ramus.

Soon after the acid test metallic ligature was applied to fix the inferior fragment to the middle right upper rib. A week later under general anæsthesia the skin incision along the posterior border of the jaw handle was closed at the angle near the midline from the leg and a copper wire of the usually employed gauge size was passed through the hole and twisted to form a loop. The loop retreated together with a piece of strong cloth. By turning the cloth tightly over tampons on the edge of the neck and over the anteroposterior traction as produced on the ascending ramus. Still stronger traction was produced on succeeding days by placing the patient on his back as wide as possible. Sooner or later the union of the levators

After the third day no intra-buccal apparatus was necessary and on the third day the loops were removed and the patient discharged with almost complete consolidation.
 JUDITH C. MCGILL M.D.

Spring v. E. Fulton, et al. In testimony of the Pathology of the Ductless Glands in a New Treatment of Benign and Malignant Thyroid Disease. P. Ry. Sec. M. d. L. d. 97 8

Sprayson contend that the sequelae of canines in deciduous teeth are, no and here t f om those occur g i permanent teeth but a less ofte seen because of the much shorter time the deciduous teeth em n n the jaw. The only histological difference between the granulomata on

deciduous and permanent teeth is that in the former there are much grosser masses of epithelium probably because of the greater vascularity of that part during the active tooth forming and tooth absorbing period and the greater youth and activity of the epithelial cells involved.

The new features of the operation described are the preservation of the tooth involved in the cyst and the retention of a considerable portion of the cyst lining. The operation is simplified into opening of the cyst cavity freely enough to merge it into the buccal cavity. Drainage then becomes almost automatic and lavage is facilitated. The cyst lining is not removed because it is epithelial and therefore protective. If it were removed there would be considerable risk of damage to the involved permanent tooth which it is desirable to conserve. There would be also a very much larger raw surface open to infection and the absorption of toxins after the operation and there would be more hemorrhage and pain. There does not seem to be much object in removing one epithelial lining when the desirable ultimate result is that another epithelial covering shall grow in from the edges of the wound and replace it. The new operation is much simpler and shorter than the old procedure and does not require picking of the wound to arrest hemorrhage. Sprawson is aware that similar retention of the cyst lining is occasionally practised in the treatment of dental cysts. This treatment conserves the permanent tooth.

The author reports 4 cases in which the new operation was performed. The patients were 9, 9, 6 and 8 years of age. In every case the permanent tooth was saved.

In conclusion the author claims to have demonstrated the following facts:

- 1 Granulomata occur on deciduous teeth
- 2 Dental cysts occur on deciduous teeth
- 3 When dental cysts occur on deciduous teeth they may envelop adjacent unerupted permanent teeth
- 4 Cysts on deciduous teeth may obstruct delay or misdirect the eruption of adjacent permanent teeth
- 5 On the removal of the obstruction eruption of the underlying tooth may be resumed
- 6 When in the process of growth a dental cyst envelops an unerupted tooth a dentigerous cyst is produced

Sprawson has attempted to prove only that dentigerous cysts frequently and indeed usually arise from septic deciduous teeth—not that they always do so.

The article contains several roentgenograms, illustrations of serial model and photomicrographs of sections.

The dental cyst, dentigerous cyst, cyst of eruption over a deciduous tooth or a permanent tooth which has no predecessor and the cyst of eruption over a permanent tooth which had a deciduous predecessor are discussed briefly. CARL R. STEINKE, M.D.

Tinnoff W. C. Dry Sterilization of Instruments *U. S. J. Ophth.* 19 7 35 & 598

In the dry sterilization of instruments recommended by the author the instruments are placed in suitable containers which are wrapped with 2 layers of heavy wrapping paper and labeled. They are then placed for half an hour in an electric sterilizer automatically controlled by a thermostat which keeps the temperature at 160 degrees C (320 degrees F). On their removal they are kept in the paper until they are used.

It has been found that a temperature of 121 degrees C (250 degrees F) for 40 minutes will destroy practically all bacteria and spores.

The advantages of the method are that it preserves the instruments from rusting, the instruments are subjected to less handling and accordingly there is less chance that sharp points and edges will be dulled and less chance of infection. More thorough sterilization is obtained and the possibility of carbolic burns of the eye are avoided.

Tinnoff has used the method for years. He recommends it not only for ocular instruments but also for spinal puncture needles, syringes and instruments for emergency use in the office or elsewhere.

The only objections to the procedure are that several sets of instruments are necessary and they must be prepared a day or so before they are to be used. THOMAS D. ALLEN, M.D.

EYE

Key B. W. Protein Therapy in Practice *Am. J. Ophth.* 1927 38 & 600

Key emphasizes the beneficial results to be obtained from the use of foreign protein, especially antidiabetic serum, in hypopyon keratitis, infection following penetrating wounds of the cornea and iritis. In 3 cases of iritis remarkable clearing was noted following such treatment. Key uses protein therapy always in addition to the usual local measures. THOMAS D. ALLEN, M.D.

Noguchi H. Experimental Studies of Trachoma *Arch. Ophth.* 19 7 161 & 3

Material removed from the conjunctiva of known cases of trachoma was injected subconjunctivally into monkeys without producing any reaction. When the same material was cultured on ordinary media a growth of staphylococcus bacillus xerosis (a sarcina-like organism) and a small motile gram negative bacillus was obtained. None of these produced trachoma-like lesions in monkeys. The active organism was found to be a small pleomorphic bacillus-like organism which was motile only under certain conditions and grew on a semisolid medium containing fresh animal serum and haemoglobin. Of 1 monkey inoculated with this organism a trachoma-like inflammation resulted in all but 1. In 1 animal scar formation began 7 months later. Three recovered after having conjunctivitis for

A review of the literature on similar conditions is given. The author agrees with Leber and von Hippel that the abnormality is not due to inflammation and is not a relic of the hyaloid artery.

SAMUEL A. DARR, M.D.

Wagener H. P. and Gipner J. F. Arterial Spasm and Occlusion of Branches of the Central Artery of the Retina. *Am J Ophthalm* 197 35: 650.

The authors review the history and findings in 2 cases of spasm in a branch of the central retinal artery and compare them with the history and findings in 3 cases of arterial thrombosis. The first condition they contend never leads to permanent blindness; its characteristic picture is complete invisibility of the artery distal to the spasm during the spasm and re-tortion to normal subsequent to the spasm.

THOMAS D. ALLEN, M.D.

EAR

Marriott Mck. Pediatric Aspects of Otolaryngology. *Ann Otol Rhinol & Laryngol* 97 7: 1080.

Marriott states that when an infant has been taking a suitable food in adequate amounts and fails to gain, the food is not at fault and an infection must be sought. The infection most frequently responsible for nutritional disturbance is otitis media. The findings in this condition, particularly in the cases of extremely malnourished or atrophic infants, are slight changes in the drums (ragging of the posterior superior canal wall just external to the tympanic membrane) which often can be seen only with the electric otoscope. Usually immediate anastomosis under local anesthesia brings about amelioration of the symptoms (diarrhea, vomiting, and a slight increase in the temperature and leucocyte count) followed by recovery.

In children beyond the age of infancy, sinus infections are frequent and give rise to a wide variety of symptoms. Tuberculosis is often simulated but treatment of the sinuses rapidly clears up the picture. Chronic bronchitis with bronchiectasis may be produced or there may be repeated attacks of abdominal pain. In some children with sinus disease the symptoms of asthma are noted. A definite sensitization predisposes to sinus infection on account of the hypertrophic condition of the membranes. Rheumatic endocarditis, chorea, and articular rheumatism are frequently accompanied by sinus disease, and clearing of the sinus infections is the best means of preventing their recurrence. Nephritis is one of the most important and distinct manifestations of nose and throat infection and is practically always to be found in nephrosis. In glomerular nephritis there is usually a streptococcal infection.

The general diagnosis of sinus disease may be made by the pediatricist but to determine the particular sinus involved examination by an otolaryngologist is necessary.

MARION R. WALTZ, M.D.

Barlow R. A. Does a Vitamin Deficient Diet Cause Deafness? Results of Animal Experimentation. *Laryngoscope* 197 7: 840.

The author carried out a series of experiments on rats extending over a period of two years to determine the relationship between rickets and deafness. The results indicate that even in severe cases of rickets the calcium content of the bony capsule is not appreciably altered. In rats on a diet deficient in Vitamin D there was no demonstrable loss of calcium in the bony labyrinth although the long bones showed a definite loss in calcium and an increase in canalization. The comparative study of roentgenograms of normal and rachitic rats showed no loss of calcium in the latter.

From these findings it appears that rickets is not an etiological factor in deafness and that there is no reason to believe that a child who has had rickets is likely to become deaf.

JAMES C. BRISWILL, M.D.

Shambrugh G. L. Explanation for the Symptom of Paracusis Willisii: A Demonstration. *Am J Otol Rhinol & Laryngol* 97 7: 8.

In the cases of persons with normal hearing the acuity of hearing is decreased by extraneous sounds. This decrease is apparent throughout the tone range but is greatest for the lower tones. A defect in hearing due to stapes fixation is increased rather than decreased by extraneous sounds.

In noisy surroundings the person with normal hearing tends to raise his voice to overcome the handicap but the person who is deaf because of stapes fixation does not experience the handicap because the deafness for low tones effectually shuts out most of the extraneous sound. Accordingly the handicap experienced from obstructive deafness may be less than that experienced by the normal person as the result of extraneous sounds. This explains why while riding on a train for example a deaf person often hears the voice better than a person with normal hearing.

JAMES C. BRISWILL, M.D.

Lierle D. M. Otitis Media in Infants. *Am J Otol Rhinol & Laryngol* 197 7: 64.

A syndrome of intestinal disturbances produced by otitis media in infants has been described frequently during the past years and the author here reviews a group of 100 cases. The infant with this condition becomes critically and suddenly ill with marked dehydration, loss of weight, high fever, diarrhea, and periods of syncope. Examination of the ear shows drumhead changes or bulging of the posterior superior walls. In 92 of the cases reviewed these findings were bilateral and there was associated paranasal sinus disease.

The prognosis is dependent upon the duration of the infection, the presence of other systemic complications, and the virulence of the organism.

Repeated myringotomies may be necessary for drainage but when these are unsuccessful and there is bulging of the posterior superior wall a mastoidectomy is indicated.

tomy is indicated. This should be done under chloroform oxygen anaesthesia with a maximum time limit of 5 minutes. G. J. R. M. ALLIFF MD

De n L W. Aute Otitis in Infants Its Influence on Certain Systemic Conditions and the Influence of These Conditions on the Method of Treating the Combined Acute Otitis. J. Otol. 1917 97

In Dean's opinion the symptoms which lead to the discovery of otitis in infants and the conditions which determine the choice of treatment are more often pediatric than otologic. Refusal of food dehydration diarrhoea and loss of weight may be factors determining whether myringotomy or mastoidectomy should be performed.

In the treatment of the otitis and pediatrician must work in the closest cooperation and must have complete confidence in each other. The pediatrician should not confine his work to the general treatment of the child but should enter actively into the discussion of the need for myringotomy or mastoidectomy.

As paranasal sinus disease is often associated with acute otitis treatment for both conditions is usually advisable. It is often difficult to decide which of the two is most influential in causing the systemic disease. J. S. C. B. S. L. N. D.

Chapman S. J. The Etiology of the Middle Ear with Especial Reference to Helicobacter. J. Otol. 1917 97 63

In his anatomical practice the author sees from 4 to 6 cases of tuberculous otitis media per 100 patients and contrary to the usual findings this condition is discovered as a rule in adults. In most cases it begins insidiously with auricular discomfort. Later there is a seropurulent discharge. Inflammation of the drum is ordinarily of a local nature and in adults mastoid tenderness is uncommon. In mixed infection is present. Facial paralysis is fairly common complication but labyrinthitis and meningitis are frequent.

The diagnosis is made from the characteristic onset the middle ear finding the characteristic presence of an adjacent or remote tuberculous focus the discovery of tubercle bacilli in the discharge on examination of smear or guinea pig inoculation and the finding of pathological examination of excised tissue.

Boric acid irrigation is employed when the discharge is profuse but later simple wiping out of the ear will suffice. Helicotherapy is of definite value and worthy of trial in chronic cases. The sunlight is reflected by means of a modified solar laryngoscope. The patient treats himself beginning with a half minute exposure once or twice daily and increasing it half a minute a day up to 5 or 6 minutes. The author's opinion on his results have been sufficiently encouraging to warrant the continuation of heliotherapy.

G. E. R. McALLIFF MD

Sidbury J. B. Mastoiditis in Infants. A Report of 40 Operated Cases. S. H. M. J. 1917 97 173

Forty surgically treated cases of mastoiditis in infants are reviewed. Twenty of these cases presented the picture of an acute gastro-intestinal intoxication. The primary examination of the ears was frequently negative. Repeated examinations demonstrated a gradual loss of normal luster of the drum with marginal injection. Invariably there was some sagging of the posterior superior canal wall.

The author concludes that atresia and anhydremia in infants are often the result of infection of the mastoid antrum. Whenever any sign of infection is noted repeated otologic examinations should be made and free drainage established. Close cooperation between the pediatrician and otologist is essential. W. M. PATON MD

NOSE AND SINUSES

Layton T. B. The Relation of Nasal Polypitis to Inflammation of the Accessory Sinuses of the Nose. P. C. K. S. C. M. D. L. O. D. 1917 97 4

In Layton's opinion polypoid catarrh is a special type of inflammation of the mucous membrane. They are usually associated with catarrhal inflammation. To cure this condition all of the diseased area must be removed. Resolution of the inflamed mucous membrane must be secured. In the maxillary sinus drainage and massage may be sufficient but in ethmoiditis of the type under discussion the removal of the entire diseased area is necessary.

Layton accepts Hajek's classification of sinusitis. He believes that the two chronic types are distinct. They are a different and separate courses and do not change into each other. When an antrum full of pus opened the mucous membrane is rarely polypoid. While a suppurative sinusitis may be superimposed on a catarrhal inflammation this is not the same as the changing of one process to the other. The causative differences between chronic catarrhal and chronic suppurative sinusitis have not been explained as yet.

The author has operated upon three cases by an unusual external technique. The nasal process of the superior maxilla was removed to ether with the ethmoid bone and the os planum of the ethmoid with all of the ethmoidal cells back to the body of the sphenoid. W. M. PATON MD

Nelson R. F. Meningitis of Nasal Origin. A Study in Superficial Anatomy. J. Otol. 1917 97

Meningitis of nasal origin is a rare disease before which practically all surgeons stand hopeless and inaction. But as a sufficient number of cases has now been reported there seems promise of a useful method of surgical attack. He has described an operation by which exploration of the frontal ethmoid and sphenoid can be done simultaneously under local anesthesia in a practically bloodless field and a complete safe and sure removal of their

nasal walls accomplished under direct inspection and from the closest possible range.

This external fronto ethmoidectomy shows that the subarachnoid spaces of the cranial fossa are clearly and safely accessible through the roofs of the ethmoid and sphenoid sinuses in front of the optic chiasm and that extension to this region of the accepted principles of surgery for meningitis of extramenigeal origin is feasible.

GEORGE R. McVULF M.D.

I. Lupton I. M. Frontal Sinus Empyema in Young Children with Several Case Reports. *Int. J. Otol. Rhinol. & Laryngol.* 1927 xxxvi 693.

The author reports three cases of acute frontal sinus empyema in children about 11 years of age which was characterized by the rapid development of sinus pain and oedema over the sinus necessitating a radical external operation. A routine study of roentgenograms shows that the frontal sinuses are more often of surgical importance in children than is generally believed and that in many cases of meningitis in children the condition is probably the result of unrecognized sinus infections.

Prevention is to be attempted by keeping the nose free from secretions and keeping it open by such measures as suction, the use of ephedrin and removal of the anterior tip of the middle turbinate. Intranasal operations help but little; a thorough ethmoid extirpation permits approach to the floor of the frontal sinus. MANFORD P. WALTZ M.D.

Thompson G. H. Malignant Neoplasms of the Antrum. *Int. J. Otol. Rhinol. & Laryngol.* 1927 xxxvi 715.

It is a common belief that malignant neoplasms of the antrum are rare but a recent review of the literature precludes this assumption. Malignant growths in the antrum are believed by many to have their origin in previous abnormal conditions such as disease in a tooth socket, the degeneration of a fibrous polyp or papilloma or injury by trauma. One observer, however, failed to find anything approaching a precancerous condition or any previous nasal condition in 30 cases.

The rapidly growing tumor fills the antral cavity and breaks through the wall of the nose or pharynx causing pain, bleeding and glandular involvement.

X-ray examination and transillumination are valuable aids in the diagnosis but should not take precedence over clinical evidence.

The prognosis is usually very unfavorable. In the cases of children it is less unfavorable if the tumor can be thoroughly removed.

Formerly the treatment consisted mainly in resection of the maxilla but the end results of this procedure were so extremely disappointing that it has now been practically abandoned. Of the great variety of surgical measures advocated today all are practically modifications of the Caldwell-Luc or Moore technique. Additional treatment is given with the X-rays, diathermy and radium.

In conclusion the author emphasizes that the rhinologist, the dentist and other practitioners treating the nose and mouth must bear the possibility of malignancy in mind and endeavor to recognize such degeneration before it has advanced to a hopeless stage.

(FORCE P. McVULF M.D.)

NECK

Kessel L. and Hyman H. T. Exophthalmic Goiter and the Involuntary Nervous System. VIII. The Course of the Subjective and Objective Manifestations of Exophthalmic Goiter in Fifty Unselected Patients. *Arch. Int. Med.* 1927 xl 314.

The authors discuss the course of the subjective and objective manifestations of exophthalmic goiter in fifty unselected patients observed for five years without the institution of specific therapeutic measures. The treatment consisted in a diet of 3000 calories, the daily application of wet packs at a temperature of 75 degrees, the administration of 1 gr. of phenobarbital as a hypnotic and the administration of from 5 to 30 minims of syrup of ferrous iodide three times a day to hasten involution of the thyroid gland.

Only thirty-one of the patients were followed closely; the others were lost sight of for various reasons. In none of those successfully followed did the subjective symptoms entirely disappear. These symptoms did not bear a constant relationship to the intensity of the disease, the basal metabolic rate or the economic restitution. The symptomatic and laboratory findings are tabulated. In no case did the goiter entirely disappear.

The basal metabolic rates of ambulatory patients are given in tables.

From the patient's standpoint, social and economic restitution is most important. Economic restitution occurred for an average of fifty-two months in the fifty-seven month period of observation.

The purpose of this report is to establish a normal or control upon which future reports regarding various types of specific therapy may be based.

C. O. HEIMDAL M.D.

Froisier J. The Basedow Syndrome 6 Months After Treatment with Iodine. The Role of Heredity (Syndrome de Basedow six mois après une cure iodée rôle de l'hérédité). *J. ill. et ém. Soc. méd. de hop. de Par.* 9 7 lui 616.

A 25 year old man with subacute rheumatism of the dorsal spine received during the month of March 1926 both iodine and salicylate therapy (8 perispiral or epidural injections of 2 c.c. of lipiodol and 12 injections of 1 mgm. of salicylic acid). After

months iodine was given by mouth together with colloidal sulphur until September when the rheumatism was much better and the administration of iodine was discontinued. In November the patient began to lose weight and after January 1927 developed the symptoms of exophthalmic

goiter—regular elastic diffuse thyroid hypertrophy bilateral symmetrical exophthalmos tachycardia tremor profuse sweats hot flushes frequent diarrhoea and marked emaciation Examination of the spine with the roentgen ray revealed iodized oil still present The patient was temporarily benefited by injections of the antithyroid serum of Coulaud

Although the incidence of Basedow's syndrome in patients treated with iodine is low Trouser believes that there is a possible relation between the iodotherapy and the thyrotoxicosis On the other hand the iodine may have played a role secondary to the relative tendency to hyperthyroidism in the patient's mother also developed exophthalmic goiter the subject is

WALTER C. BURKE, M.D.

H. T. V. K. Streptococcal Laryngitis Report of a Case with Very Rare Complications
Otolaryngology 78

Streptococcal laryngitis causing definite dyspnoea and stridor occur rather infrequently but must be borne in mind when a laryngeal infection is not definitely diphtheritic In the author's case the dyspnoea became so marked that intubation was done As this resulted in no benefit a tracheotomy was performed The tracheotomy gave immediate relief However despite all treatment the child died The larvae yielded practically pure cultures of non-hemolytic streptococcus The case is complicated by aplastic anaemia which is especially rare in children
GERRARD McALLEN, M.D.

SURGERY OF THE NERVOUS SYSTEM

BRAIN AND ITS COVERINGS CRANIAL NERVES

Vlasto M. Meningitis of Sphenoidal Sinus Origin
P e l o v S o M d l n d 1) x x 1763

Vlasto states that as sphenoidal sinus infection is a rather frequent cause of purulent meningitis of the non epidemic type and is often associated with otitis media the sphenoidal sinus should always be examined at autopsy in a case of death from non epidemic meningitis and in the examination of the patient with otitis media. *ERR (OLD) BIR M D*

SPINAL CORD AND ITS COVERINGS

Delageniere A. Tumors of the Spinal Cord (I
t u m u r s d e l a m o l l e) *J d l r 1) 7 x x x 510*

Delageniere reviews 34 cases of tumor of the spinal cord in which operation was performed. In the case of a patient with signs of compression of the spinal roots or pain without definite cause lumbar puncture is indispensable as it will prove the presence or absence of compression. The immediate injection of lipiodol will reveal the level of any condition causing compression and sometimes even its nature.

If the compression of the spinal cord is not due to Pott's disease operation should be performed without hesitation. In cases of tumor the operative mortality is barely 9 per cent. In cases of perimedullary tumors it is only 4 per cent whatever the site of the neoplasm.

The late prognosis of intramedullary tumors (malignant gliomata) remains very poor. It is generally impossible to extirpate such growths but decompression and evacuation of the cysts sometimes brings about considerable temporary improvement.

Seventy four per cent of spinal tumors are circumscribed perimedullary growths. In 76 per cent of the cases removal of the tumor enables the patient to resume his normal life and in 63 per cent it results in a complete cure.

Early operation gives incomparably better results than operation performed after the tumor has become evident clinically. If operation is not performed the condition will be fatal.

AUDREY G. MORGAN M.D.

Robineau. The Role of Lipiodol in the Surgery of Medullary Tumors (Le rôle du lipiodol dans la chirurgie des tumeurs médullaires) *Bull t m Soc i t d f 1927 l i i i 618*

Of 24 cases of perimedullary tumors (intradural in connection with the spinal roots or the surface of the cord) and cases of intramedullary nucleolar tumors only the first 4 were operated upon without a previous injection of lipiodol. In the others the

lipiodol indicated the upper and lower limits of the neoplasm. In cases in which the ascending and descending lipiodol were combined the X ray showed the tumor poles exactly. There were no failures.

In cases of diffuse tumors of the cord areas of arachnoiditis and tumors of the dura mater errors resulted from faulty technique or incorrect interpretation of the X ray picture. Sicard reports false arrests of the lipiodol in subarachnoid migration. A total or partial arrest of lipiodol is significant only when it is constant on successive examinations. From this standpoint radioscopy previous to roentgenography is of value. A satisfactory negative finding after lumbar injection followed by the inclined posture does not prove that injection by the alto occipital route will be negative.

Robineau disagrees with Desgouttes as to the sterilizing action of lipiodol since he has found that wounds do not heal more aseptically when it is used. Also unlike Desgouttes he found no hyperemic action of lipiodol even when the injection was made only days before the operation. The vascular dilatation was due to the tumor. Moreover after the patient has been put down from the inclined position the lipiodol fell into the cul de sac and was not in contact with the tumor at operation.

Lipiodol remains in the spinal canal many months before it becomes encysted in the sacral cul de sac. In about 100 observations the lipiodol that was imprisoned in the lumbosacral region was found to be perfectly tolerated whether operation had been done or not.

In a case of spinal lesion in which clinical examination indicated a low dorsal localization but lipiodol was arrested much higher up and at operation no lesion was revealed at the low dorsal site but a pachymeningitis was found higher up it was evident that the lipiodol was arrested by the arachnoiditis but was not the cause of the condition.

Robineau has followed the evolution of subarachnoid injections of lipiodol by Sicard from the very beginning and believes that the method is harmless. The lipiodol test is subordinate to clinical examination but has helped to clear up many doubtful tumor cases that had been treated erroneously as Pott's disease, cardiovascular syphilis, rebellious sciatica, etc. It has revealed the location of tumors more accurately and facilitated the early diagnosis of medullary tumors. When the diagnosis is made early operation may be performed before the period of scars and urinary infection.

Since the discovery of exploration with lipiodol perimedullary tumors are operated upon 10 times more frequently than before and the operative mortality has been considerably decreased.

WALTER C. BURKET M.D.

PERIPHERAL NERVES

Basset A Inj. y of the T o Upper Roots of the
Brachial Plexus During Laparotomy with the
Patient in the Trendelenburg Position (Lé on
de d sup du pl u bach la
u d l p t m p d le Tr nif
b g) Bull Int S p d l 9 l 565

A tall thin woman with a long neck and drooping
shoulders was operated upon in Trendelenburg's
position for a large infected hematoma on the left
side. When she was seen a month after the
operation she presented paresis and partial opht
of the subcapular and supraspinatus and seratus
magnus muscles on the right side. She still had
some pain but it was not severe. There was no
disturbance of kinesis at the joint.

The distribution of the lesions indicated that the
upper roots of the brachial plexus were affected.
The nerves are the most oblique and the most superficial.
The lesion was a probable cause by a hulaer re
t on the operating table. Because of the patient's
habitus the brachial plexus was more oblique and
upper scapular angles were projected than usual. It
was difficult to say whether the lesion was a cau
preion or stretching. It was light and localized
in the proximal part.

In the last part of the operation the patient
that he felt the left arm was being stretched
of the left brachial plexus. In the middle of the
abduction the patient was lifted from the table.
He was surprised that the left arm was not
frequent in the arm's position in the table.

There is all that had a number of u
cases. In most of them the left arm was
flexed but in the case of the patient it was
first thought to be a fracture of the humerus
ret of the operation but later it was found to
be the abduction of the left arm and of the
patient's arm in the position of the hand from
the field of operation. The degree of excitement
from the patient's arm. It was a long and
brachial plexus may be stretched.

BALMAGNYER reported that once a paraly
sis of the trunk of the ulnar nerve due to pressure
under a screw on the operating table.

OUBREDAINE stated that he had seen a case of
paralysis of the brachial plexus from operative
levering of a congenitally high scapula.

In conclusion Basset said that he had seen his
patient again two months after his report was written
and the expected improvement in the paralysis
had not taken place. ANDERSON

MISCELLANEOUS

Jensen and W The Encapsulated Tumors of the
Nervous System Meningeal Fibrosarcoma
Perineural Fibrosarcoma and Neurofibroma
of von Recklinghausen's Disease
Cobalt 97 1 8

The benign tumors of the nervous system are
grouped histologically as (1) meningeal fibrosarcoma

toma (2) perineural fibrosarcoma and (3)
neurofibroma. The first two are fibroblastic but
are easily distinguished because each retains the
characteristic morphology of the tissue of origin.
Only tumors of the last group contain nervous
tissue.

The encapsulated tumors the most important
group treated by the neurosurgeon include 30 per
cent of the intracranial tumors and a relatively
greater percentage of the spinal cord tumors.

The author reports upon thirty-two encapsulated
tumors the histological characteristics of which
have been studied by the improved Del Rio Hortega
and Cajal staining techniques. A description
of the gross pathology of each group is given.

Neurofibromatosis of von Recklinghausen is a
systemic disease often showing hereditary tendency.
The pigmentation and hypertrophic changes
of the skin are believed to be the results of wide
spread thickening of the nerves. Congenital
anomalies of the peripheral nervous system is
thought to be a factor in the development of the
neoplasms. In Trotter's opinion the presence of
increased connective tissue about the nerve in
dicates that improper insulation of the fibers causes
stimulation of the connective tissue. Slender col
lagen fibers of uniform calibre throughout are found
in the tumors. Fibroblastic changes resembling the
solitary fibrosarcoma arise from the
endoneurial connective tissue are sometimes dis
covered. These are attributed to irritation and are
a source of confusion. Degeneration is common.

Perineural fibrosarcoma are solitary en
capsulated tumors usually found in a central lo
cation attached to the cranial nerve or the spinal
nerve roots rather than to the peripheral nerves.
Intracranially they are most often attached to the
acoustic nerve. Histologically they are characterized
by paladin and parallelism of nuclei and a
tendency to form nuclear eddies and streams but
the characteristic are not pathognomonic. The
author agrees with Mallo's view that the type cell
of the nerve sheath tumor and of the endothelioma
is the fibroblast. The origin of the perineural fibro
sarcoma is the perineural endoneurial connective
tissue.

The meningeal fibrosarcoma are always at
tached to the dura. They never invade the brain or
cord but may invade the overlying skull causing
the formation of osteosarcomata. They are believed to
arise from the arachnoid or the under surface of the
dura. There is a dense stroma continuous with the
dura and the blood supply is from the dura. In
slowly growing tumors collagen may be found but
differs in its appearance from that in the other
types. Isomorphous bodies and whorls indicate a
close relationship to arachnoid granulations.
Transition areas between perineural and meningeal
fibrosarcoma are found. The main difference
is in the character of the collagen fibers.

The article contains excellent illustrations of the
microscopic anatomy. E. S. PLATT, M.D.

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Kopp J G Bleeding from the Nipple (Le déversement sanguin du mamelon) *La chirurgie Scient* 19 7 lui 115

Of 181 cases of cancer of the breast there was bleeding from the nipple in 20 (11 per cent). In one fifth of them the discharge was present before the formation of the tumor or was the only sign of the condition. In 9 (45 per cent) cancerous degeneration of a benign tumor was very probable.

Of the 45 patients with a benign tumor of the breast had a bloody discharge. In 16 cases no tumor was distinguishable clinically although operation revealed a duct papilloma or a cystic condition of the breast both of which as is well known have a marked tendency to undergo malignant degeneration. Cessation of the bloody discharge is not a proof of recovery.

In all cases of bleeding nipple with or without a tumor the only treatment is partial or total removal of the breast. Partial extirpation is not sufficient in some cases and is therefore seldom recommended. Radiotherapy is not advisable as it is most uncertain in its effects.

Fraser J A Study of the Malignant Breast by Whole Section and Key Block Section Methods *Surg Gynec & Obst* 1937 xlv 66

Whole sections of the breast afford an excellent opportunity to study the complete mammary picture of breast carcinoma. The key block system of paraffin sections is other with the whole celloidin section system is described.

Studies of vaginal marital and senile breasts demonstrate the activity of the acinar epithelium which lines the cul de sacs of the terminal ducts. Proliferation and retrogression of the acinar epithelium are related to the arrangement of the elastica. In the breast which is physiologically active the elastica does not enclose the duct terminations while in the senile breast it extends so as to seal up the duct termination. Several different types of tumor may occur in one breast.

Lymphatic dissemination of malignant tumor occurs by a vertical group of central lymphatics which extend centrifugally into the deep fascia. Later intramammary lymphatics open up. There is no evidence that the subcutaneous lymphatics play a part in the dissemination. The blood vessels and the duct system may be sources of dissemination.

A localized malignant tumor is associated with widespread secondary changes in the duct and the acinar system these taking the form of an epithelial proliferation which ultimately becomes malignant.

J FRANK DOUGHTY M D

Schoute D and Orban C The Treatment of Cancer of the Breast with and without Subsequent Roentgen Treatment *La radiol* 1927 xiii 239

From their statistics the authors conclude that we are justified in continuing to give roentgen treatment after operation for cancer of the breast that in fact we should not be justified in discontinuing such treatment. They believe that postoperative roentgen ray irradiation applied correctly will lessen the incidence of local recurrences. For further improvement however the closest co operation between the surgeon and roentgenologist is necessary.

TRACHEA LUNGS AND PLEURA

Libert E and Bariety M Iodism Following the Intrabronchial Injection of Lipiodol (Incident iodisme consécutif à l'injection de lipiodol intra bronchique) *Pull Clin Soc m d d hôp de Lar* 1927 lui 615

Libert and Bariety in 1926 saw 2 cases of slight intolerance to lipiodol after the intracricothroid injection of 40 c cm of the oil for the study of bronchial dilatation. The injection was followed by an œdema localized on the face and neck, congestion of the face and lachrymation. After 4 hours these sequelae were greatly attenuated and soon disappeared. No disturbance of the general condition was noted.

WALTER C BURKET M D

Klotz O Cancer of the Lung with a Report upon 24 Cases *Canadian Medical Journal* 1927 xii 98

Postmortem studies have shown a marked increase in the incidence of carcinoma of the lung. In the period from 1878 to 1900 this condition was found in 0.08 per cent of autopsies, whereas in 1910 it was found in 0.9 per cent. Malignant tumors of the lung constitute 1 per cent of all malignant neoplasms.

In discussing the etiology of pulmonary carcinoma Klotz states that he has been unable to find anything in the occupation of his patients which might predispose to the condition. The influenza epidemic and gassing during military service may have been factors in its increase. Another possible factor is the new environment that is developed around the epithelial structures as the result of chronic diseases of the lung such as fibrosing pneumonia and bronchopneumonia which cause considerable distortion of the parenchymatous tissues and of the bronchi leading to them. In such an environment cell metaplasia may readily occur with carcinomatous change.

The author attributes the high incidence of carcinoma of the lung among the miners of Schneeberg—75

per cent of whom die from it—to the high content of iron in the nickel and cobalt metal. As the content of iron is less frequent in other mining districts it is not left in the metal. Klotz does not accept the view that molybdenum is sufficient for bronchial irritation to produce cellular metaplasia but believes that incomplete oxidation of motor car fumes may be a factor.

In 3 of the author's cases the condition began in the bronchi mucosa. In only one case were there no metastases in distant organs.

A satisfactory classification of the tumor in the bronchi is the result of microscopic examination of the tumor. In the majority of the tumors the cells have an alveolar arrangement and cuboidal or polygonal cells and stratified cells may be seen in the lining fields. In a histological analysis of pulmonary tumors Klotz found it quite impossible to distinguish the origin of the tumor cells from the bronchial epithelium.

J. J. M. V. M. D.

Kornblum K. A. Case of Primary Carcinoma of the Lung Showing Bronchiectasis and Pleural Effusion. J. R. H. O. T. L. and H. L. M. G. W. The Roentgenology of the Lung. J. H. G. I. J.

KORNBLUM reports a case of primary bronchogenic carcinoma of the lung, which of peculiar interest because of its roentgen manifestations. The progressive changes in the tumor of the lung are complicated by atelectasis and pleural effusion. It is a unilateral disease, the direct extension of the growth into the right lung involvement of the pulmonary system from the right lung as one of the first evidence of metastases to the brain. The symptom from the metastases in the brain are such as to overshadow the primary lung symptom.

HAYE and HOLMES briefly review the literature on primary tumor of the lung and describe the pathological changes in the roentgen picture. They tabulate as follows:

Primary tumor of the lung is found less often than is indicated by older statistics. Fifty per cent are carcinoma, 5 per cent various non-malignant tumors, 17 per cent cysts, 19 per cent metastatic lung tumors develop more frequently in males than in females. In the right lung more frequently than in the left lung. They are most common between the fifth and sixth decades of life. In males the incidence is made before death in only 10 per cent of the cases but a recent case has been made in 90 per cent.

Carcinoma of the lung is a very common disease. Usually it has its origin in the bronchus. It grows into the bronchus and then into the bronchial tree or extends to encircle the bronchus and extends into the lung as a tumor mass. Metastasis may occur in other type forming separate nodules

in the lung or elsewhere in the body. Sarcoma generally simulates the second type of carcinoma but originates more commonly along the smaller bronchi of the lung. Carcinoma are generally cystic and have smooth surfaces. They contain fluid and occasionally bone and teeth or even parts of a fetus. Mixed tumors are circumscribed masses of varying size and location in which cartilage and bone predominate.

The roentgen appearance of the very rare carcinoma of the alveolar epithelium is that of a tumor mass in the parenchyma of the lung. It may be surrounded by an area of pneumonitis or its interior may become necrotic and cavitation may occur. In the case of bronchial epithelial carcinoma of the first type no diagnostic roentgen findings may be present in early case. When a bronchus is blocked atelectasis occurs and fluid may be found. Extension along the bronchial tree may accentuate the shadows. In the common type of bronchogenic carcinoma there is the shadow of a tumor mass at the lung root. The outline may be smooth but usually is irregular with radiations to the lung field. Bronchiectasis, pneumonitis, fluid or other complications may alter the findings.

Sarcoma simulates the latter type of carcinoma and its development and appearance. Carcinoma produce more tense oval shadows near the mediastinum, sometimes with evidence of contained fluid or bone. Cystic shadows may be lentiform. Mixed tumors appear as circumscribed lobulated shadows containing areas of the density of bone which distinguish them from echinococcus cysts. They may occur in any location.

In addition to the direct roentgen findings of the tumor and its complications other features of importance may be presented. On the affected side the tracheogram may be high and fixed and the interpleural narrowed. The mediastinal contents are displaced toward the side of the tumor unless it is very large or there is excessive fluid. The lung usually shows a compensatory emphysema.

The roentgen finding of primary lung tumors is extremely variable and may resemble the following: abscess, pneumonia, bronchiectasis, bronchopneumonia, echinococcus cysts, encysted empyema, foreign bodies, gangrene, Hodgkin's disease and other malignant masses, interlobar effusion, leukemic infiltration, lobar pneumonia, massive collapse, metastatic malignant disease, pleural plaque, pleural effusion, pneumoconiosis, post-influenzal pneumonia, pulmonary tuberculosis, syphilis, tuberculous abscesses of the spine and tumors of the thyroid, thymus, pleura and other near by structures.

The following considerations are applicable:

Primary lung tumors are not so rare as is commonly believed.

An attempt at earlier diagnosis should be made.

3. An understanding of the underlying pathological process in carcinoma is necessary to the interpretation of the roentgen findings.

1 A correlation of the clinical and roentgenologic finding is necessary for the diagnosis.

5 Rarely the roentgen findings present features which are practically pathognomonic. Among the more suggestive findings is that of a dense hilar mass with nodules and radiations extending into the lung field.

6 The most common or typical lung tumor is a carcinoma of the right bronchial tree in a male in the sixth decade. Thus appear in the roentgen findings as a hilar shadow with radiations extending into a small immobile lung field but may possibly be obscured by shadows of pneumonic or other complicating processes.

ADOLPH HARTUNG, M.D.

HEART AND PERICARDIUM

Winslow N. and Shipley A. M. Pericardiotomy for Pyopericardium. A Review of the Literature to May 1927 and a Report of 10 New Cases. *Arch Surg* 9 223.

Winslow and Shipley report 10 cases of pyopericardium which were treated by pericardiotomy with a cure in 60 per cent and death in 40 per cent. In their first 4 cases approach was made by trephining the sternum but later the approach was through an incision parallel with the left costal margin with resection of the fifth sixth and seventh costal cartilages. In cases approach was made from the right side and in 1 case by resection of the left fifth costal cartilage.

In every instance the pericardium was thick and taut and the heart seemed close to its anterior wall. The pericardium is easily recognized because it is gray thick and opaque in contrast to the pleura which is thin and translucent.

The authors review 10218 cases reported in the literature making a total of 128 upon which their statistics are based. The ratio of males to females affected is 35:1. The condition is most common under the thirtieth year of age. Pneumonia seems to be the most important causative factor but gunshot and stab wounds and osteomyelitis are frequent causes. Only 3 cases have been classified as idiopathic. The chief infecting organisms are the pneumococcus streptococcus and staphylococcus.

Lumbar puncture has been practiced quite extensively for both diagnosis and treatment but when done for treatment has invariably failed to give lasting results. It has been condemned as being too hazardous and not necessary for diagnosis. When a puncture fails to disclose pus and the clinical signs indicate its presence surgical measures should be initiated promptly. In the cases reviewed the amount of pus varied from a few drops to 500 c. cm. and in the majority had collected behind the heart and pushed it forward against the anterior pericardial wall.

The diagnosis depends largely upon recognition of the diseases in which pyopericardium is a complication. It is made by a careful physical and

roentgenographic examination of the chest supplemented if necessary by paracentesis of the pericardium. The most common signs are enlargement of the precordial dullness a rapid pulse dyspnea distant and weak heart tones elevation of the temperature and cyanosis but frequently many of these are missing. Of particular interest clinically is the occasional absence of fever. The bottle-shaped roentgenographic shadow in the center of the chest is of great significance.

The best treatment appears to be open drainage at the earliest possible moment as advocated by Cruton but regardless of the time that has elapsed between the diagnosis and the operation the proportion of cures maintains a fairly uniform level. Klose and Strauss state that it is best to operate before the exudate has changed to pus.

The authors report cases of pericarditis with effusion accompanying osteomyelitis. Examination of the fluid at the time of the operation showed it to be sterile but after a few days it was distinctly purulent. The occurrence of recovery in both instances suggests that it might be well to drain all potentially purulent cases. The authors believe that after the exudate has become distinctly purulent a reasonable delay does not materially compromise the chance of recovery.

Operative intervention has been condemned as unwarranted on the ground that if the patient lives he will sooner or later develop a fatal obliterative pericarditis but 9 of the cases reviewed proved this assumption to be incorrect. From 5 months to 21 years after the operation 5 of the patients were alive and well and at their usual vocations with cardiac boundaries within the normal limits. One patient had adhesive pericarditis but was still alive another died from it.

Many different methods have been used for drainage with about the same results but by far the greater number of surgeons prefer tube drainage. Usually 2 tubes are used 1 placed in the cul-de-sac on either side of the heart. Irrigations with any one of 15 solutions have been employed. The mortality in cases so treated was 48 per cent. In several cases in the reports of which irrigation was not mentioned the mortality was about 40 per cent. Extreme care is necessary in irrigation because of the frequent occurrence of plugging of the catheter with pressure on the heart.

The prognosis of pyopericardium is always grave but by no means hopeless. The most important factor in the prognosis is the etiology.

CHESTER L. CRUTAN, M.D.

ESOPHAGUS AND MEDIASTINUM

Moore I. The Pathology of Esophagectasia (Dilatation of the Esophagus without Anatomical Stenosis at the Cardiac Orifice). *J. F. 14 10 Otol* 97 10 57.

Three varieties of dilatation of the esophagus are described—the fusiform the pear-shaped and the

S shaped In the first the lowest point is the cardia There is no increase in the length of the canal and the greatest dilatation occurs about midway between the level of the cricoid cartilage and the cardia In the pear shaped variety the esophagus is dilated in its lower one third and shows the most marked dilatation just before it passes through the diaphragm as in the funnel type the cardia is the most dependent portion In the S shaped variety which is the chief the upper end at the cricoid and the lower end at the cardia are more or less dilated The anastomosis and increase in length It could usually be traced to the right The dilated portion rests upon the diaphragm From there it passes upward and to the left and then through the diaphragm to a high level

The muscular coat of the pharynx is not always hypertrophied In two of the authors' cases the wall was thinner than normal while in the other hypertrophy was present even in the most widely dilated portion of the tube The involvement of fluid and content at autopsy in many cases seems to indicate that the condition is due not to spasm but to mechanical obstruction surrounding part The author reports a case of this type in which esophagogastricostomy was performed at the cardia of the stomach with good result

Moore agrees with Kelly that destruction of the nerve end of the vagus has a pleurovagogenic change may account for the loss of normal muscular contraction and relaxation The effect of such lesions would be to veract of the cervical plexus The cause may be a toxic one

The article contains a historical and photographic of each variety of dilatation

WILLIAMS MD

Wasson W W Thymic Stridor J A M 1909

Infant with respiratory stridor may be divided into 4 groups

1. Those who at birth make a respiratory noise probably due to mucus

2. Those between a month and a year old with a stridor which is usually attributed to the thymus

3. Those with anomalies and tumors in which there is definite evidence of a pathological condition to account for the stridor

4. Those with definite infection of the upper respiratory passages

Thymic stridor generally supposes to be the result of pressure on the trachea exerted by the thymus on account of its size or perhaps through some internal secretion In the author's opinion the question is whether many of the cases thought to be thymic stridor are due to derangement or enlargement of the thymus

The thymus normally begins to grow at about the birth period and reaches its maximum at about the end of the first year of life After from 8 to 36 months it is usually not detected in the roentgenogram No doubt many factors modify its growth

but as a rule the smaller glands are found in undernourished small children while the larger glands are found in well nourished large children In many cases in which a large thymus has been found at autopsy it has been considered a predominant cause of death no doubt often erroneously

During the past few years the author has had the opportunity to make roentgenological studies of infants from birth and in a considerable number has noted evidence of bronchial or pulmonary infections in the first few weeks of life In such cases the paranasal sinuses are often infected as has been noted by Carmody and Dean

It is quite probable that respiratory infections occur much earlier in life than was formerly believed Wilton has suggested that many cases of stridor in infants are caused by these respiratory infections as young children cannot thoroughly remove mucus from the trachea Many such cases are promptly relieved by the use of atropine

A number of cases are reported in which different forms of treatment were used with about equal results Treatment of the respiratory or paranasal infections gave some relief The cases attributed to the causes did not apparently differ from those of presumably thymic stridor The fact that roentgen-ray therapy proved satisfactory in some cases did not warrant the opinion that the thymus gland was the causative factor The author does not assume that the thymus is the principal cause of stridor merely because it is enlarged He searches for other possible causes by a thorough routine examination

While radiation has given good results it is apparently no better than other forms of treatment and is not to be considered a specific

HAROLD M CAMP MD

Remer J and Belden W W Roentgen Diagnosis of the Thymus in Children J A M 1917 19

Brief consideration is given to the gross and microscopic anatomy and development of the thymus The pathology of the gland is discussed relative to thymic death thymic asthma and status thymicus lymphaticus Various clinical types of thymic enlargement are described The outstanding symptom is dyspnea of varying degree accompanied by a peculiar crowing inspiration known as thymic stridor The condition may persist to adult life

Its recognition depends largely upon roentgen examination This must be carefully made The author describes their technique The shadow of the enlarged thymus as seen on the roentgenogram extends on both sides of the spine It is wider below than above and merges with the shadow of the base of the heart Occasionally the X-ray findings are negative when the clinical picture is diagnostic

The results obtained by operation are unsatisfactory Radium has been employed successfully but should be used only by thoroughly competent and experienced operator Roentgen therapy is regarded as the treatment of choice as it is readily

available practical easy to apply and safe in competent hands. The authors give approximately one tenth of an erythema dose of rays equivalent to an 8 in. spark gap filtered through 3 mm. of aluminum. An anterior and posterior area is exposed each time and this treatment is repeated at intervals depending upon the results obtained. The average number of treatments required is four or five.

ADOLPH HARTUNG M.D.

MISCELLANEOUS

Heuer G. J. Further Experiences with Intra Thoracic Tumors. *Ann. Surg.* 1927 LXXXVI 229

Heuer reports upon thirty one cases of thoracic tumor—three tumors of the chest wall six of the pleura nine of the lung two of which were metastatic ten of the mediastinum two hour glass tumors involving both the chest and spinal cord and one apical chest tumor.

Fifteen of the patients were subjected to operation. Two with a benign tumor refused surgical treatment. In the fourteen others the lesion was so far advanced as to preclude operative procedure.

Of the fifteen cases treated surgically radical removal was accomplished in nine. Eight of the patients recovered two of those with malignant tumors are alive more than two years after the operation and two died of recurrence within a year. Of the patients treated by partial removal of the tumor only one lived more than two years.

Of the entire series of cases 35 per cent were operable. The mortality when radical operation was attempted was 10 per cent. The author believes that by earlier diagnosis and operation these results may be materially improved.

FRANK B. BERRY M.D.

Mallet Guy P. and Desjardins R. The Technique of Resection of the First Two Ribs by the Iostero-External Suprascapular Route (Technique de la résection des deux premières côtes par la voie postéro-externe sus scapulaire). *Lyon chir.* 1917 XXIV 193

In the operation described the incision extends from the acromioclavicular articulation to the center of a line passing from the posterior border of the mastoid to the inner end of the spine of the scapula. It is made between the fibers of the trapezius so that few of the latter are cut and it ends at the tuberosity of the first rib. The spinal nerve is exposed and held aside.

The levator anguli scapulae appears at the posterior angle of the wound. The deep posterior scapular vessels are exposed and ligated and the nerve of the rhomboid which crosses the first rib at a right angle on the scalenus posticus is exposed. The part of the rib lying under the scalenus is then denuded and resected. The resection must be coned in order to avoid the nerves. Resection of the second rib near the transverse process is accomplished easily.

AUDREY G. MORGAN M.D.

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

David V C Peritonitis an Experimental Study
J G G V C Ob t 9 1 87

Dr id performed experiments on dogs to determine the path of the colon bacillus from the normal peritoneum from the peritoneum which is undergoing different grades of peritonitis and from the peritoneum which contains transudate. A record of the experiments is presented with the following conclusions

1 Colon bacilli pass directly into the blood stream as well as into the lymphatics from the normal peritoneum

2 A well developed plastic peritonitis prevents the passage of the bacillus coli from the peritoneum into the blood stream or into the lymphatics emptying into the thoracic duct

3 Lesser grades of peritonitis prevent the passage of the bacilli coli into the blood stream but usually do not prevent its passage into the lymphatics

4 Colon bacilli injected into the peritoneum which contains a transudate pass rapidly and in great numbers into the chyle from the thoracic duct and directly into the blood stream

5 By analogy one may assume that in a well developed general infectious peritonitis bacteria do not pass directly into the blood stream or into the lymphatics draining into the thoracic duct and that the major problem in peritonitis is not the development of a septicemia

J I A D GUY M D

GASTRO INTESTINAL TRACT

Alvarez W C The Treatment of Nervous Indigestion
J I M I 9 7 1 44

Alvarez urges a more sympathetic attitude to address our patient and emphasize their need for rest. He complains that hospitalization is the fact that the clock helps him to sleep they get between 5 and 9 a.m. Rounds at 8 a.m. are very hard on the patient who does not fall asleep until 4 a.m.

Object on is made all to the present tendency to give patients diet with a high content of bran and other roughage and irritants. The excessive flatulence and indigestion can be dispensed with during the patient's comparatively short stay in the hospital. Alvarez believes that his method is the safest for regular use in hospital.

He maintains also that surgeons would have much better results and that their patients could sleep more better suffer less from nausea and recover more quickly if more use were made of barbituric acid derivatives such as barbital, adalin and bromural

and less use were made of morphine. The newer soporifics have a more lasting effect and quiet the vomiting center.

Robinson V P A Case of Perforation of a Gastric Ulcer in a Boy of 12
L A J 9 27 600

The patient whose case is reported gave a history of gastric pain for three months and once an attack of severe abdominal pain. At operation a perforation of the stomach 2 1/2 in across was found in an ulcer 1 in in diameter on the anterior wall of the greater curvature. The opening was closed and the ulcer infolded by catgut sutures. The patient was discharged cured two months later.

MARCUS H. HOBART M.D.

Dansey St J W A Little Peptic Ulcer of Gastric and Duodenal Ulcer
M J J 1 1 1 S pp 97
P 7

Perforation of chronic gastric ulcers occurs more commonly in males than females possibly because of the anterior position of gastric ulcer in the male. Its incidence is highest between the ages of 25 and 45 years. There is usually a preperforation stage in ulcers. When the ulcer has extended to the peritoneum even a slight increase in the internal pressure is sufficient to bring about its rupture. Rupture may be caused by a meal, hunger, contractions of the stomach or physical exertion (especially when the stomach is full) during sleep perhaps also by the rhythmic muscular contraction of the stomach.

Practically 90 per cent of perforated ulcers occur in the immediate area of the pylorus either on the gastric or the duodenal side of the sphincter.

In all cases there is a history of attacks of indigestion. The first symptom of rupture is a constant stabbing pain in the upper abdomen. This is followed by rigidity of the upper abdominal muscles. Vomiting is not common before the development of peritonitis. The breathing is shallow and short and the facial expression is drawn and anxious. The pulse at first slow but with the onset of peritonitis it becomes faster and the abdomen becomes distended. The gastric contents in case of ulcer are highly acid and ferile. When the diagnosis is made promptly and operation is done within a few hours the mortality rate greatly diminished.

The author describes the usual procedure of suturing the omentum over the site of rupture and the establishment of drainage.

The advisability of performing a gastric jejunostomy at the time of operation is open to discussion. The author is in favor of this procedure unless the patient's condition is very poor. He gives the following reasons:

1. As a rule it does not increase the risk

2 Gastrojejunostomy must be accepted as an essential step in bringing about the cure of the ulcer

3 There is much less chance of leakage after this operation

4 A gastrojejunostomy prevents the possibility of obstruction when a pyloric or duodenal ulcer has been so infolded as to occlude the lumen

HEPMA H HUBLE MD

Abadie J Three Hundred Operations for Ulcer of the Stomach 264 of Which Were Pylorotomies (A propos de 300 opérations pour l'ulcère du stomac dont 264 pylorotomie) *Bull. Chir.* 1924, 111 614

The cases reviewed included ulcers of the last three fourths of the stomach and the first parts of the duodenum. The treatment of ulcers high up on the lesser curvature near the cardia and of ulcers in the third portion of the duodenum is quite different. Ulcers should be classified chiefly into those near the pylorus and those far from the pylorus rather than into those of the stomach and those of duodenum. Among the author's 64 cases of duodenopylorotomy there were 14 deaths, some of which were due to errors of technique and others to pulmonary complications which might perhaps have been prevented.

Simple resection of an ulcer is never satisfactory, as the removal of a lesion does not cure the disease. Excision of the pylorus is not justified because it is a difficult and as serious as pylorotomy and does not decrease but rather increases gastric hypersecretion and hyperacidity. Gastroenterostomy is better because it puts the ulcer at rest, changes the dynamics and chemistry of the stomach, results in a permanent cure and is less serious than gastropylorotomy. The author uses it in about 1 in 10 cases. As a rule he prefers duodenogastrectomy. This operation removes the lesions, prevents their possible transformation into cancer and profoundly changes the mechanical and chemical conditions of gastric function because it removes the pylorus thereby changing the nervous connections and remove also the greater part of the secretory area.

The author has seen a number of cases in which there was no microscopic ulcer but the pylorus appeared to be thickened. In such cases in which he removed the pylorus a cure resulted. In other cases he performed a gastroenterostomy at first but was obliged to perform a pylorotomy later. When the risks of pylorotomy seem out of proportion to its advantages over gastroenterostomy he performs the latter operation.

Abadie emphasizes the necessity of delaying operation until the blood urea is reduced to approximately normal and the importance of prophylactic vaccination against postoperative pneumonia. He uses spinal anesthesia induced with stavaine and preceded by an injection of caffeine. He never uses morphine or scopolamine. He has been obliged to employ ether in the last only cases.

ALFRED G MORGAN MD

Odelberg A Primary Resection of the Stomach in Perforating Gastric and Duodenal Ulcers *Acta Chir. Scand.* 1917, 131 159

The author reviews 60 cases of primary resection for perforating gastric or duodenal ulcer. He draws the conclusion that methods of resection may be used even in early cases of perforation.

Ieresson M Final Results of Gastric Resections for Cancer *Acta Chir. Scand.* 1919, 133 1

In this article the surgical treatment of carcinoma of the stomach is reviewed on the basis of 1150 cases. In 330 cases in which only exploration was done the operative mortality was 17.1 per cent. In 450 cases treated by gastroenterostomy as a palliative measure it was 3.1 per cent. In 361 cases a radical resection of the stomach was performed.

The author has made a special study of cases of radical gastric resection and has succeeded in tracing the majority of them. He points out that during the last 10 years the operative mortality of gastric resections has risen considerably, but this is due to the more radical measures employed today and to the fact that many cases previously considered inoperable are now operated upon.

Of the 361 patients subjected to resection 10 were men. The types of operations were the Billroth I, Billroth II and the Polya. The total mortality was 8 per cent. The Billroth I and Polya operations have a higher mortality than the Billroth II procedure. Lightly and five tenths per cent of the patients died of recurrence of the carcinoma within 5 years. Eighteen patients were alive and well from 7 to 20 years after the operation.

In several of the cases in which good results were obtained the growth was large. In 3 cases a resection of the transverse colon was necessary. In none of the cases with successful results was there involvement of the regional lymphatic glands.

The Billroth II and Polya operations proved to be far superior to the Billroth I procedure.

In the author's experience the scirrhus type of carcinoma has shown a much greater tendency to recur than any other. HAROLD W WOOLLEY MB

Devine H B The Status of Gastro Enterostomy in Gastric Surgery *Med. J. Australia* Supp. 9 p 67

Devine reviews the opinions of English, Continental and American surgeons regarding the status of gastroenterostomy.

The fundamental physiological aim in gastroenterostomy is to obtain an ideal emptying time. The emptying time depends upon what Alvarez call the gradient of the stomach and intestine and on the distance of the stoma from the pylorus. The farther away the stoma is from the pylorus the quicker the emptying time. In the author's cases of gastroenterostomy a skiagram is taken after the operation to determine the exact emptying time and a fractional test meal is carried out to find the acidity as a guide for postoperative treatment.

Case of unsuccessful gastroenterotomy fall into two groups: (1) those with ulcer formation and (2) those with errors in the gastric motility manifested by nausea, sickness, vomiting, diarrhoea, intestinal opisth movements and great loss of weight and energy and excessive spur formation at the anastomosis.

The cause especially of the error in gastric motility may be explained as follows:

1 The afferent loop is too long and a tension in the application of the intestine to the stomach was not noticed.

2 The loop is too short and slight tension has no room to untwist.

3 The loop is kinked near the anastomosis.

4 The stomach plus the retentive deep peritoneal area too near the pylorus.

5 In the very dilated stomach, the pylorus is the stomach is drawn up to the cecum and the serous curve by the topographic contraction and retention of the dilated gastric muscle.

6 The stomach puckered by binding it into the rent in the transverse colon on the intestinal side of the anastomosis.

7 The gastric and intestinal ucle lack a normal gradient.

8 The stomach too close to its direct surroundings or too near the lesser curvature.

Spur formation, cur most frequent in very large stomach placed too high on the posterior wall or too far toward the fundus.

Ciminata A. The Effect of Bilroth II Resection of the Stomach on the Function and Secretion of the Pancreas and on Intestinal Absorption. (A preliminary report on the results of the Bilroth II method of resection of the stomach and pylorus.)

Fedeli has written an article disputing the priority of the work of Ciminata on the effect of the Bilroth II resection on the function of the pancreas and on intestinal absorption, but Ciminata points out that his method was different from that of Fedeli. Fedeli studied the external secretion of the pancreas in dogs with pancreatic fistula after excision of the pylorus by the Eiselsberg or Paclavsky method. Ciminata made two series of experiments in one of which he studied the intestinal absorption of fats and nitrogenous substances after resection of the pylorus part of the stomach by the Bilroth II method and in the other of which he studied the external secretion of the pancreas in dogs with permanent pancreatic fistula after resection by the same method. His object in both series was to study the external secretion of the pancreas after deviation of the chyme from the duodenum. He still claims priority for his method as it was different from that of Fedeli. He is glad to note that the results by the two methods are the same.

AUDREY G. MORGAN, M.D.

Fistulae of the Small and Large Intestine.

1. It is better to divide the fistula above the level of the rectum. The classification of such intestinal fistulae: (1) fistula opening externally on the abdominal wall; (2) opening between the lumen of hollow viscus and (3) fistula formed by the rupturing of an abscess into a hollow viscus.

Fistulae in the first group may cause characteristic symptoms or may be found only on exploration. In biliary obstruction a natural cholecystenterostomy may occur. Fistulae opening externally discharge the contents of that portion of the intestine in which the rupture exists situated. The amount of the discharge depends upon the length of the tract its tortuosity and the size of its inner orifice. A case is cited in which the discharge was intermittent because of a valve-like inner orifice.

The character of most intestinal fistulae can be determined with the X-ray after the administration of a barium meal or enema. In the small intestine the location of a fistula can be estimated roughly from the length of time elapsing between the oral administration of an indigo dye and the appearance of the dye in the discharge.

Intestinal fistulae are best surgically for the relief of obstruction or intestinal paresis usually close to the upper part but occasionally they persist and if it discharges the major portion of the intestinal contents its closure may be both serious and difficult.

The treatment of testal fistulae is conservative or radical. By more prompt operation for strangulation and abscess care in surgical technique and handling of the tissues a direct prevention of contact between a drain and a visceral line of suture the formation of an intestinal fistula may often be prevented.

Conservative treatment should always be tried except in cases of debilitating duodenal fistulae. The irritating effect of the discharge on the skin may sometimes be controlled by the application of suitable emollient and if frequent changes of the dressing. An effort should be made to decrease the discharge by the pre-use of graduated tampons.

In the inguinal appendectomy, fecal fistulae are much less frequent if the stump of the ligated appendix is buried by a purse-string suture of absorbable material. When this is impossible because of friability of the cecal wall the omentum should be sutured over the doubtful area. In the destruction of the intestinal wall contiguous to an abscess the intestine should be resected and an anastomosis effected if the patient's condition will permit.

For fistulae of the sigmoid colon which are often due to a ruptured diverticulum or pelvic abscess conservative treatment is best.

In the treatment of fistulae of the upper intestine radical measures are usually necessary. As advocated by Koebler, attempt should be made to reestablish the normal passage of the intestinal current by the introduction of the horizontal portion

of a rubber T tube. After the size of the fistulous orifice has been materially reduced by granulations the vertical and outer horizontal segments of the tube should be severed and the remaining horizontal segment left to be discharged through the rectum.

Radical treatment is indicated when conservative treatment fails. Either the simple extraperitoneal suture of the orifice of the fistula or the more formidable suture or resection may be attempted.

In the treatment of complete fistulae of the lower part of the small intestine in which the distal segment of the intestine retracted into the peritoneal cavity lies at some distance from the anterior abdominal wall the author follows the mesentery of the proximal loop to its vertebral attachment and then tracing it downward and to the right dissects close to the mesenteric layer until the orifice of the distal loop comes into view. He then makes an end to end anastomosis.

He reports the case of a woman on whom a myomectomy was done eleven years ago. In 1904 the patient had attacks of low abdominal and rectal pain fever and diarrhea. At operation an extensive abscess was found. Thereafter a sinus persisted in the abdominal scar. In 1925 the sinus was found to communicate with the small intestine but its discharge has gradually decreased and the abdominal scar has become progressively more depressed so that healing will probably result.

In the discussion of this report MORRIS stated that if the inner opening of the fistulous tract is far enough away from the abdominal wall plastic excu date will usually close the tract spontaneously. In many cases of fistula the injection of Beck's bismuth paste gives good results. In a case of fistula due to a large ovarian abscess one injection was followed by cure.

HYND classified intestinal fistulae into four groups (1) those occurring from the perforation of a marginal ulcer into the colon (2) those occurring between pelvic abscesses, the tubes and the sigmoid (3) those occurring between the gall bladder and duodenum and (4) those occurring after gangrenous perforative appendicitis. He reviewed the surgery that is necessary to cure a gastrojejunoileal fistula and cited a case in which a no loop gastroenterostomy had been done previously. He stated that fistulae in the duodenum heal well and are of less importance than those occurring from the opening of a jejunal stump following resection. Since all intestinal fistulae are different he believes that each must be considered separately.

DUNHAM reported a case in which he injected iodiform and ether into an abdominal sinus which exuded pus but no gas or feces. Soon thereafter the odor of ether was detected on the patient's breath, thus indicating a connection between the sinus and the intestine. The sinus closed without further treatment.

BRICKNELL suggested that in Elliot's case the intestine may have been invaded by an endometrioma or the sinus may have had two communications, one

with the intestine and the other with the uterus or a tube.

DOUGLASS discussed two cases showing the difficulty encountered in determining the etiology of fistulae. One was the case of a man with several fistulae following operation for double hernia. At a second operation a strangulated femoral hernia was found and a cure was effected by a temporary ectostomy and intestinal resection. The other case was that of a man upon whom an ileosigmoidostomy had been followed by a fecal fistula. On the supposition that the anastomosis had given way a second operation was performed. On dissection of the fistula a small hole in a loop of the small intestine was found.

EDMAN reported a case of combined external fistula similar to the case reported by Flot.

STETTLER called attention to the fact that cigarette drains may cause fecal fistula. He believes however that abdominal drains should be left in place for at least a week in order to establish a definite sinus tract.

AUCHINCLOSS stated that in the treatment of intestinal fistulae he has used a sea sponge with a hole in the center for a suction tube. The sponge takes up the excess fluid as it gushes out. He has found also that drying the wound with an electric light lamp is of great aid. He warned of the occurrence of fecal fistulae from the division of intestinal adhesions.

BANCROFT said that one of the ways of preventing fistulae is drainage of secondary pelvic abscesses following appendicitis through either the cul de sac or the rectum.

In closing the discussion ELLIOT reported that he had never used Beck's paste or opened pelvic abscesses through the rectum. He cited statistics showing that duodenal fistulae usually heal spontaneously. He believes that abdominal drainage is best established by means of a flexible rubber tube with a strip of gauze running through it. The tube should be removed at the end of the second day and thereafter changed daily. At the end of a week its use may frequently be suspended. The period of drainage should be as short as possible.

KARL H. TANNENBAUM, M.D.

Maclaure Spinal Anesthesia in Intestinal Occlusion (A propos de la rachianesthésie dans l'occlusion intestinale). *Bull et mem Soc nat de chir* 97 lui 472

Lapointe A Spinal Anesthesia in Acute Ileus (La rachianesthésie dans l'ileus aigu). *Bull et mem Soc nat de chir* 1927 lui 474

Vanlande Boppe and Okinczyk Spinal Anesthesia and Ileus (Pachianesthesie et ileus). *Bull et mem Soc nat de chir* 107 lui 479

Picot Spinal Anesthesia in Intestinal Occlusion (La rachianesthésie au cours de l'occlusion intestinale). *Bull et mem Soc nat de chir* 111 lui 486

MACLAURE reports cases in which intestinal occlusion was overcome by spinal anesthesia. One of them was a case of strangulated hernia and the

ALARY said that he does not use spinal anesthesia in cases of occlusion as he knows of death on the operating table resulting from the hypotension. ALDERY C MORGAN MD

Duval P. Spinal Anesthesia in Acute Ileus (La rachianesthésie dans l'iléu aigu) *Bull. Chir. Fr.* 1911; 86: 19-21

Duval has collected 400 cases of spinal anesthesia in acute ileus. He groups them into cases of strangulated hernia, dynamic ileus, and mechanical ileus with various subgroups under the latter heading. He finds that spinal anesthesia brought about evacuation of the intestine in 68 per cent of the cases of dynamic paralytic and paralytic ileus and in only 16 per cent of those of mechanical ileus.

In acute ileus its effect varies greatly in different cases. It does not seem to be dangerous unless the patient is weak and intoxicated and has a low blood pressure.

In strangulated hernia local anesthesia should be used as it is more active in causing spontaneous reduction of such hernia than any other form of anesthesia.

In postoperative ileus spinal anesthesia seems to be the treatment of choice if peritonitis is not evident. The only question is whether a secondary operation is necessary after the evacuation of the intestine. The author believes that spinal anesthesia often brings about a permanent cure without any further intervention and that these are the only cases in which it should be used as treatment. However, the patient should be kept under close observation and a secondary operation should be performed if the symptoms of ileus recur.

In cases of mechanical ileus the intestinal evacuation should be followed by operation. Whether the operation should be performed immediately or after several hours of rest will depend upon the conditions of the particular case.

When spinal anesthesia causes intestinal evacuation it facilitates the examination of the abdomen and renders the operation less serious. Even when it does not cause evacuation until after the removal of the obstruction it obviates the necessity for handling the distended loops to put them back into the abdomen, makes the closure of the abdomen easier, and favors rapid detoxication of the organism, which in Duval's opinion far outweighs the danger of intoxication from the absorption of toxic material that has been emphasized by Okinczyk. Duval concludes that spinal anesthesia is the anesthesia of choice in acute ileus except in the cases of patients with severe intoxication or low blood pressure. ALDERY C MORGAN MD

Guibal P. Spinal Anesthesia in Ileus (La rachianesthésie dans l'iléu) *Bull. Chir. Fr.* 1911; 86: 19-21

The author has used spinal anesthesia in 46 cases of intestinal occlusion. It brought about

evacuation of the intestine in only 4. In cases it caused very serious symptoms and in other deaths. In 3 of the 4 cases in which intestinal evacuation resulted it did not occur until after removal of the mechanical obstacle and would probably have occurred in a few hours without the spinal anesthesia. The patients who died were well and vigorous and in any other than spinal anesthesia had been evacuated and would probably have recovered.

From his experience in about 3,000 cases, Guibal concludes that spinal anesthesia does not cause evacuation of the intestine in more than about 1 case in 10. He believes it to be particularly dangerous in ileus because of this condition, generally accompanied by intoxication, stercoraria, and shock.

ALDERY C MORGAN MD

Lynamore J W and Graham E A. Diverticula and Duplication of the Duodenum with Reference to the Importance of Cholecystitis in the Production of Symptoms. *Am. J. Surg.* 1911; 10: 3

A large majority of duodenal diverticula are clinically latent. In addition to diverticula of the true and false type, there are pseudo-diverticula. Pseudo-diverticula are redundant duplications of the duodenum within its retroperitoneal sheath.

The various findings in the various types of duodenal diverticula are described. Differentiation of the true and false type cannot be made prior to operation or autopsy. A case of large false diverticulum and a case of pseudo-diverticula are reported. In the latter the gall bladder was displaced and its removal relieved all of the symptoms although the diverticular side pockets of the duodenum persisted. Cholecystography is considered a necessary procedure in such cases.

J FRANK LIGHTS MD

Brenner E C. Perforated Ulcers of the Duodenum. *Ann. Surg.* 1911; 53: 393

Brenner reviews twenty-seven cases of perforated ulcer of the duodenum. He states that shock is not so prominent or so frequent a complication of perforation as is generally believed. It occurred in even of his cases. He noticed that ulcers about to perforate caused tenderness and rigidity of the abdominal wall on pressure. He believes that operation should be performed immediately regardless of the occurrence of shock. The lumen of the duodenum may be reduced as much as half by infolding of the ulcer without danger of causing stenosis. In the author's cases, simple closure of the ulcer gave the best results.

D F ROBERTSON MD

Fotosching G. Perforated Duodenal Ulcer in a Child 11 Years of Age. Gastroduodenal Resection Recovery (Ulceri duodenali perforata in bambino di 11 anni, reiezione gastroduodenale) *Arch. Ital. Chir.* 1911; 17: 25

A child 11 years of age was suddenly taken with intense abdominal pain in the early morning and

brought to the hospital a journey of 3 hours on the back of a mule. The mother said that the patient had had gastric symptoms and transitory pain in the epigastrium for several months and before the last attack had vomited twice. For the past few days the pain had been more intense and had lasted for several hours. On the way to the hospital the child had vomited twice.

A diagnosis of perforated duodenal ulcer was made from the rapid development of the signs of diffuse peritonitis and from the discovery on roentgen examination of a zone of air between the liver and the diaphragm. Castroroduodenal resection by the Billroth II method was followed by recovery.

Ulcer of the stomach and duodenum is rare in childhood and perforation is still more unusual. The author believes that his patient, the youngest patient in whom a perforated ulcer has been treated by gastroduodenal resection. Most of the cases have been treated by simple suture of the ulcer. The author believed that resection was indicated in his case because the lesion was a chronic callous ulcer, the condition of the heart was good and the peritonitis was still limited to the subhepatic space.

ALFRED MORGAN, M.D.

Sherwood W. A. Neoplasms of the Neocervical
Surg. Clin. Vol. 4, 9.

New growths of the gastrointestinal tract are found most commonly at the points of greatest constriction, where the alimentary tube changes in structure and function and where there is a valve or valve-like arrangement for the propulsion of the food current from one part to another. These points of greatest constriction are the esophageal orifice of the stomach, the pyloric ring, the ileocecal angle, the rectosigmoid junction, and the anorectal pouch.

The author reports three cases in which the neoplasm originated in the septum dividing the cæcum from the ileum and caused an intussusception. Histological examination of each tumor showed three types of pathological change—carcinoma, fibroma, and lymphosarcoma.

MILFERN, N. M. D.

MILFERN, W. E. Gabriel W. B. Gordon Watts, N. S. I.
G. Roinders R. P. and Otis. Discussion on
Colostomy. P. R. Surg. J. Vol. 4, 9.

MILES. As a result of the advances that have been made in surgery, the lumbar colostomy of pre-antiseptic days has been superseded by the more logical and mechanically improved sigmoidostomy. At first the sigmoidostomy was made in the middle of the pelvic loop with a large opening in the parietes, but the spur receded so that the opening became a lateral one with all the defects of the lumbar colostomy. Later Cripps pointed out that the difficulties could be obviated by making the opening high up in the pelvic colon.

The essential requirement of a colostomy is prevention of the passage of bowel contents beyond the

stoma into the distal loop. To meet this requirement a permanent spur is essential. When the mesocolon is short, difficulties occur in maintaining the spur as soon as the supporting rod is removed tension from within causes the spur to recede. It was formerly thought by some surgeons that the recession could be prevented by dividing the bowel completely to interrupt peristalsis. Division of the bowel is objectionable, however, as it creates a weak spot between the opening which favors herniation.

GABRIEL. Colostomy is often done with increasing frequency and is superseding operations performed chiefly for the purpose of avoiding it. It has come to be an essential part of any radical operation for carcinoma of the rectum and if well executed will give comparative comfort and will not prevent the patient from carrying on his normal occupation.

Common indications for colostomy in inoperable carcinoma of the rectum are impending obstruction, pain, loss of control from involvement of the sphincters, profuse discharge, and hemorrhage, multiple perianal fistulae, rectovaginal fistulae, cellulitis of the buttock, and a mass of growth outside the anus.

Colostomy is indicated also in fibrous stricture of the rectum and for diverticulitis, abscess formation, peritonitis, or vesicovaginal fistula.

A rare indication for the operation is acute spreading ulceration about the rectum and anus.

Recent injuries of the rectum, especially those associated with fractures of the sacrum and pelvis, colostomy is a useful adjunct to local drainage. It is of value also for the relief of obstruction due to compression by extrarectal tumors.

The best incision is a vertical one 1/2 in. to the left of the midline, splitting the fibers of the rectus muscle and large enough for exploration should exploration be required. Such an incision is less liable than others to be followed by a ventral hernia and through it the transverse colon can be reached. It is superior to any incision through the oblique muscles.

Fixation of the bowel is best accomplished by means of a glass rod pushed through the mesocolon to 1 in. from the edge of the bowel. This rod should be left in place for 14 days in order to prevent any subsequent retraction of the bowel. The peritoneum with the posterior fascia and the rectus sheath should be approximated to the bowel with all in layers with interrupted sutures of catgut. The skin should be closed when necessary by interrupted silkworm gut sutures. Accurate closure is necessary to increase the strength of the abdominal wall.

The most common difficulty is due to shortness of the pelvic mesocolon. Liberation of the bowel may be facilitated by division of adhesions. If a pelvic colostomy seems impossible, the incision may be extended upward and the transverse colon brought out.

The immediate complications of colostomy include heart failure, pulmonary complications, ex-

haustion peritonitis prolapse of the small bowel intestinal obstruction coma renal failure and hemorrhage

Among the remote complications are scar contraction with stenosis retraction of the spur prolapse ventral hernia and extension of the carcinoma to the site of the colostomy

Opening of the colostomy should not be done until 48 hours after the operation unless there is extreme distention. The later the colostomy is opened the better the chances for healing of the incision. A Paquelin cautery should be used in the transverse axis of the bowel.

At least $\frac{1}{2}$ in. of bowel should be left outside the abdomen. The excess may be trimmed off with scissors. A blanket stitch of catgut is advisable around each orifice.

A washout with soapsuds with the patient in his left side should be a daily routine procedure. The distal loop also may be lavaged on alternate days.

In St. Mark's Hospital, London, a thin piece of cotton wool about 5 in. square is placed next to the skin and covered by a flat piece of celluloid with 4 studs facing outward to impinge on the rectum. Colostomy cups are not advisable.

Foods with a laxative effect should be avoided.
GORDON WATSON. Certain details of the operation of colostomy should be stressed. In order to obviate the danger of hernia the incision if made large enough for exploration should be reduced so that there is just room for the bowel and glass rod. It should be borne in mind, however, that if the opening is too small obstruction may occur. Sepsis may be prevented by suturing the posterior and anterior layers of the rectus sheath together and the raised peritoneum to the bowel. The epigastric vessels should be avoided.

A very important detail is the prevention of tension on the bowel which may cause hemorrhage or interfere with the blood supply.

A daily washout is necessary. After a washout the patient can often go until the next day without being soiled. Colostomy cups are to be avoided as they are often offensive and are apt to cause congestion and prolapse.

ROWLANDS. Colostomy is a valuable operation. It prevents suffering and saves or prolongs life. It is particularly valuable in carcinoma of the rectum or sigmoid and is more effective than excostomy in relieving obstructions low down in the colon or rectum. It is undesirable, however, when resection or short circuiting can be carried out without undue risk.

A small partial opening is essential. The most satisfactory location is the high left inguinal or iliac region. The bowel is held in place by a glass rod or rubber covered artery forceps but may be anchored secondarily by means of skin sutures at the upper and lower angles of the wound.

If the bowel must be opened immediately a rubber tube will serve a longer time without leakage than a glass tube. In all cases the colon must be free and without tension.

NOBURY. A subumbilical colostomy through the left rectus is better controlled by the patient than an inguinal colostomy.

Complications of importance are (1) retrograde intussusception of the lower end of the colostomy with gangrene of this portion of the bowel (2) contraction of the opening with obstruction (3) rupture of a diverticulum during acute obstruction and (4) prolapse of the bowel at the colostomy opening.

INWARDS. When performing a colostomy it is the aim of the surgeon to prevent the passage of bowel contents from the proximal to the distal portion of the colon and at the same time to prevent prolapse of the small intestine through the wound. Both of these aims are best accomplished by forming an effective spur by inserting a deeply buried silkworm gut suture which bisects the wound. Such a deep suture should never be omitted.

To control a hypogastric location through the left rectus muscle is best. Cups, bags or bottles in the after treatment are contra indicated.

LOCKHART MUMFORD. The high left rectus incision is the most satisfactory for cleanliness and control. A daily washout is necessary in most cases. When the patient is abnormally fat it is best to cut away a large area of fat and allow the skin to come down to the aponeurosis rather than to attempt to bring the gut to the surface under considerable tension.

WILLIAMS. The left rectus colostomy has certain drawbacks: (1) hemorrhage from the deep epigastric vessels (2) ventral hernia and (3) the proximity of the umbilicus which necessitates special attention for cleanliness.

Absolute control of a colostomy by the patient is practically impossible but may be aided by a daily washout and the avoidance of laxative foods and drinks.

When there is any doubt that a colostomy will be beneficial it should not be performed.

LITZVILLIUS. There is not much difference in the end results dependent upon the location of the colostomy. Theoretically, however, better results should be obtained from a gridiron incision high up on the lateral abdominal wall.

Exploration either through the colostomy incision or through a primary incision is always indicated. In cases of carcinoma of the rectum the discovery of a secondary nodule in the liver should contra indicate any further procedure except measures for the relief of obstruction. If technical care is taken a large incision should not produce complications.

MARSHALL DAVISON, M.D.

Brindley, G. V. The Symptomatology and Diagnosis of Cancer of the Large Bowel. *Texas State J. M.* 1917, vol. 3, 5.

The chief function of the right bowel which develops from the midgut is the absorption of fluids. In this part of the colon the cellular or ulcerating type of carcinoma predominates. The function of the rest of the large intestine is the retention of the intestinal contents until its excretion and in this

The treatment in four cases of adenocarcinoma of the rectum is described in detail and the original lesions the technique of the treatment and the end result are shown in illustrations. The cases are typical of the early operable group. In all the results were excellent. Although metastasis to the inguinal nodes developed early in one case satisfactory palliation was obtained. In cases of bulky lesions radium was applied after treatment with the electrotherm. Radium was applied also by means of a one tube silver applicator (0.5 mm thick) containing the element with internal filtration of 10 mm of brass and 0 mm of latex rubber. The treatment was instituted with the patient in the knee chest position and with the use of a well lighted proctoscope. The radium was applied in rubber applicator directly against the growth. The normal rectal wall being protected with vaseline gauze packing. There was a normal interval of three or four days between the applications.

Colostomy is a valuable adjunct to place the field of treatment free and to decrease the risk of secondary infection. However the slight risk in the procedure itself and the subsequent restoration. Moreover the patient usually dread the operation and experience has shown that effective treatment can be given without colostomy.

Pfeiffer D B The Results of the Surgical Treatment of Carcinoma of the Rectum
Surg 97 1 34

The author reviews the evolution of various operations devised for the treatment of carcinoma of the rectum. He states that German surgeons still favor the various types of perineal operations whereas French surgeons advocate the combined abdominoperineal procedures. In England and America there are advocates of both methods. Within recent years Coffey, Jones, Lockhart Mummery and Miles have developed their techniques to a high degree of proficiency. It has been the experience of all surgeons that carcinoma of the rectum is more amenable to surgical treatment than any other form of gastrointestinal cancer.

Hoehenegg has reported upon a series of 500 cases 800 of which were treated surgically. Four hundred and sixty one of the operations were radical sacral procedures. Of these 34 were one stage amputations with a sacral colostomy and 05 were resections with reestablishment of continuity of the intestinal tract. In the case in which sacral amputation as done death resulted in 41 per cent and a 3 year cure was obtained in 43 per cent. In the 205 cases treated by resection death occurred in 87.8 per cent and a 3 year cure was obtained in 23.4 per cent.

Eichhoff of the Breslau Clinic reported upon 101 cases in 36 of which a radical operation was done with an operative mortality of 24 per cent and a 3 year cure in 26.7 per cent.

Gabriel in a review of Lockhart Mummery's work reported upon 143 cases of rectal carcinoma in

which death resulted in 15.4 per cent a 3 year cure was obtained in 23.5 per cent and a 5 year cure was obtained in 24 per cent. Lockhart Mummery makes a permanent iliac colostomy with perineal excision of the rectum.

Miles of London and Blake Lusk Jones and Coffey in America favor the abdominoperineal method. Some of these surgeons have already reported a small series of cases treated by their more recent technique which show a decrease in the mortality. The end results however are not yet known definitely.

The author calls attention to the difficulties of attempting to preserve the sphincter and the invisibility of a permanent sacral colostomy. He describes in some detail the arrangement of the arteries of the sigmoid and rectum and emphasizes the necessity for care in the choice of the site of ligature.

Pfeiffer shares with many surgeons the belief that the result of operation for cancer of the colon will become more favorable. H. R. W. WOOLKEY M.B.

LIVER GALL BLADDER PANCREAS AND SPLEEN

Hughson W. Forster C. J. The Ascertainment of the Results of Treatment of 26 Cases of Gall Bladder Disease
Surg 97 1 34

Hughson reviews our present knowledge of portal cirrhosis and emphasizes the extreme difficulty of diagnosis. The condition. Of a large series of apparently suitable cases he made a study of 26. He points out that the results of surgical treatment reported in the literature are difficult to analyze and suggest that cure and marked improvement may often have occurred in cases which could not strictly conform to modern ideas of portal cirrhosis.

He reviews the various therapeutic measures for the treatment of ascites in portal cirrhosis and from the study of his 26 selected cases come to the following conclusions:

1. It is extremely difficult to make an accurate diagnosis in this disease.

2. Age, sex, race and time offer no special indication for the employment of surgical measures.

3. There is no reason to believe that surgical measures adopted for the purpose of establishing colateral circulation are of benefit.

Hughson points out the almost constant occurrence of thickened peritoneum in true cases of portal cirrhosis and suggests that many of the reported cures following paracentesis or some other surgical procedure may have been due to obliteration of the peritoneal cavity by adhesions.

H. R. W. WOOLKEY M.B.

Hanrik R. A. The Emptying of the Gall Bladder After F. P. in Intestinal Studies
Surg 97 1 34

The experiments reviewed in this article were made in a study of the normal emptying of the gall

bladder as shown by the roentgen ray during digestion. Many investigators are of the opinion that the gall bladder empties its bile through the common duct into the duodenum. Others because of a lack of undoubted experimental proof to the contrary believe that the bile does not leave the gall bladder by the channels through which it enters.

The author's experiments were performed on dogs. The gall bladder was injected with 40 per cent iodized oil which is non irritating and produces dense shadows in the roentgenogram. To cause emptying of the gall bladder during digestion, Boyden's methods of feeding were used.

For twenty four hours previous to the injection the animals were fasted. At the end of that time the abdomen was opened under ether anesthesia and with a strictly aseptic technique the gall bladder and surrounding lobes of the liver were delivered into the wound. The 40 per cent iodized oil was then injected into the gall bladder after the withdrawal of an equal amount of bile. In all but one case the needle was inserted through one edge of the liver and introduced into the gall bladder only where the latter is attached to the liver by the *choledochus*. By this procedure it was possible to prevent disturbance of the musculature of the gall bladder and to control the leakage of bile. The slight oozing of any from the liver was soon stopped by holding the gloved finger over the area. This technique renders suturing and clamping of the gall bladder wall unnecessary and is apparently ideal for studies of gall bladder function.

After the operation the animals were again fasted until observations were made. All factors were kept as constant as possible. Roentgenograms of the gall bladder were made daily during the fasting period.

It was found that the gall bladder emptied a portion of its contents into the duodenum with digestion. The contents passed to the duodenum through the cystic and common ducts. The emptying with digestion was intermittent. Periods of active emptying were usually short and could be definitely limited over a varying length of time. Emptying began within from ten to forty five minutes after feeding and ceased entirely at varying intervals.

These studies indicate that contractions of the musculature of the gall bladder are the main factors in normal emptying and that intrinsic periodic contractions are important features brought into play with digestion. There was ample evidence that the gall bladder does not tend to expel its contents during the fasting state. Respiratory movements and changes in external and intra abdominal pressure have only a minor part if any in normal emptying but in several instances mechanical influences such as the passing of a stomach tube filling of the stomach with air aspiration of the stomach and manipulation of the stomach tube in the stomach caused the definite passage of material from the gall bladder.

The sphincter at the lower end of the common duct may be a factor concerned in the regulation of the flow of bile from the gall bladder but its action is not necessary for the emptying with digestion. External abdominal pressure caused some expulsion of the gall bladder contents in one instance when the sphincter at the lower end of the common duct was eliminated but feeding was necessary to cause marked emptying of the vesicle.

Kirklin B. R. and Kendall E. C. A New Iodine Compound for Cholecystography. *Radiology* 19 5 55

The oral administration of the iodine and bromine salts commonly used for cholecystography is occasionally followed by nausea vomiting or purging. In some instances pills and capsules fail to dissolve. Accordingly Kirklin and Kendall set about to prepare a compound which would be free from disagreeable effects and could be given in liquid form. By synthesis the diiodo diethyl ether of diisobutylphthalate was obtained. This drug is a white crystalline powder. A 10 per cent aqueous solution the form in which it is given is clear colorless odorless and slightly bitter sweet in taste with a transitory warmth as of peppermint.

After experiments on dogs the drug was given to 35 patients most of whom had been examined previously with the usual bromine salt and had responded normally to the test. The shadow of the gall bladder obtained with the new drug was denser than that obtained with the bromine salt and no shadow of the compound was seen in the bowel. None of the patients vomited though several had vomited after taking the bromine salt. 2 were purged unpleasantly but 2 of these had recently suffered from diarrhea.

Further experience will be necessary to determine the value of the compound.

Boyd W. Some Points in the Pathology of the Gall Bladder. *Canadian Medical Association Journal* 1927 27 1105

The author has studied the structural changes occurring in the normal and pathological gall bladder. In the morbid anatomy of gall bladder inflammation three principal conditions are recognized.

First acute cholecystitis characterized by infiltration of the entire wall by acute inflammatory cells and the outpouring of a purulent exudate into the cavity of the viscus. Second chronic cholecystitis in which the wall is again infiltrated by inflammatory cells this time of a chronic character with fibroblastic proliferation subsequent fibrosis and scarous interference with the delicate absorbing mechanism of the organ. Third a condition that may be termed the lipoid gall bladder also dependent in part upon chronic inflammation although of a slighter nature and distinguished by deposits of cholesterol in the mucous membrane and to a lesser extent in the deeper layers of the bladder wall (strawberry gall bladder).

With regard to the etiology of gall bladder inflammation Boyd has come to the conclusion that streptococci of low virulence are the most common causes of cholecystitis and that bacteria reach the organ by both the blood and the lymph stream (over the first part of the duodenum or the appendix).

In a study of the origin of gall stones 2 main groups were recognized: the metabolic or septic stones and the inflammatory or septic stones.

A metabolic stone is large or single and white. It is composed entirely of cholesterol. It is known as the cholesterol stone. It is apparently formed solely as the result of a disturbance of liver metabolism. Cholesterol is kept in solution by the bile acids but this solubility is dependent not only upon the amount but also upon the relative proportion of the acids. Any disturbance in the acids and any increase in the cholesterol may be followed by precipitation of the latter. The stone is distinguished by its radiate structure as opposed to the concentric structure of the septic or inflammatory stone. It is a silicified stone. As a rule the gall bladder has no tendency to inflammation but if the stone becomes impacted in the neck of the gall bladder the acute stricture which then results is apt to be followed by infection. Shallow ulcers in the wall back into the bladder and all the bile to reenter the deposit of bilirubin calcium iodine upon the cholesterol. It is the formation of a pure cholesterol stone. Several factors (high blood cholesterol, high bile cholesterol) and bacteria in the gall bladder.

The author recognizes three varieties of stones: the pigment type, these are multiple but the color of a grain of rice, black, hard and brittle. The contents of cholesterol. They are the type which so frequently complicate hemolytic jaundice.

The most common variety of gall stones is the infective or septic type. These are the fecal cholesterol pigment calcium stones which on section present a characteristic concentric arrangement of laminae. All the types of the family are about the same size but the emulsion of oil and water even the family. In addition the emulsion may be more or less combined with the other result of inflammation of the gall bladder is a mixture of pus, mucus, bacteria and epithelial debris. Out of this an acute attack of gall bladder may or less a clinical entity but as the swelling at the neck sublethargic until a day until the little nuclei of organism enter are leprosy. Cholesterol and bilirubin calcium. In this manner the family of faceted epithelial stones is formed.

Boyd thinks that many stones are formed from lipid detached from overladen cells in the gall bladder (as in the strawbeetle type of inflammation). These are so from the nuclei of new stone.

JOR J MALO L M D

Owen H R Spontaneous Rupture of the Gall Bladder into the Duodenum. J S S 9

A man 4 years of age was admitted to the hospital with a history of vomiting blood. The onset was sudden and was followed by profuse sweating and weakness. The only previous symptoms were gaseous eructations and acidity for three weeks. The temperature was 98.6 degrees F, the pulse 90 and the respiration 20. A mild secondary anemia was found. The liver was palpable but no masses were felt and there was no point of acute tenderness. A raw excoriation suggested duodenal ulcer but a fistulous opening between the gall bladder and duodenum was also considered.

Operation revealed a fistulous opening between the gall bladder and duodenum which was surrounded by firm adhesions. Posterior gastroenterotomy was followed by uneventful recovery.

I E W D L K O W M D

Judd L S and McIntire S H Cholesterosis of the Gall Bladder. C J S H M D 9

One thousand cases of cholesterosis of the gall bladder were studied. In half of them gall stones were found. About 80 per cent of the patients in each group were female. The incidence of the condition increased up as high as between the thirty-fifth and sixtieth year of age. Typhoid fever preceded the histologic evidence of about 8 per cent of routine autopsy cases and as given in 35 per cent of the histories in the case reviewed. Obesity as present in 24 per cent of the cases without stones and in 3 per cent of those with stones. Pregnancy had preceded in 58 per cent of the former and 67 per cent of the latter. The majority of the women trace the trouble to the time of their first pregnancy.

It is as located in the right upper quadrant and in the majority of cases in each group it radiated inferiorly. Morphine is required for the relief of the pain. 5 per cent of the cases without stones and 14 per cent of those with stones. The radiation of symptoms was slightly longer in the cases without stones. Intoxication was an important general complication in both groups. True gallbladder food poisoning as present in 40 per cent of the cases without stones and 50 per cent of those with stones. Belching or bloating or both occurred in 55 per cent of the former and 61 per cent of the latter. Vomiting occurred in 35 per cent of the cases without stones and 45 per cent of those with stones. Jaundice as present in 7 per cent of each group and chills and fever occurred in about 10 per cent of each group.

Horsley J S Jr Experimental Study of Cholesterosis of the Gall Bladder and Cholelithiasis. J S S 9 7 6 7 4

Horsley Experimental study made to determine the immediate and remote effects of

cholecystogastrostomy and cholecystoduodenostomy on the gall bladder the bile ducts and the liver

Seven cholecystogastrostomies combined with occlusion of the common bile duct 3 cholecystogastrotomies without interference with the common bile duct and 9 cholecystoduodenostomies with occlusion of the common bile duct were done on dogs. Three groups of control dogs were studied to compare the condition of the biliary system. The first group was made up of dogs that had never been operated upon the second of those that had had 1 or more operations on the femoral and crural arteries and the third of those that had been subjected to 1 or more operations on abdominal viscera (gastrostomy enterostomy etc.) All of the operations were performed under ether anesthesia after a preliminary injection of morphine.

The technique of the cholecystogastrostomy is described in detail. The technique of the cholecystoduodenostomy was practically the same.

Of the 9 dogs subjected to cholecystoduodenostomy 5 died within a week after the operation from peritonitis due to leakage at the anastomosis. The high mortality was due to partial pulling loose of the anastomosis with subsequent leakage and peritonitis. In dogs the walls of the duodenum are much more friable than the walls of the stomach and the duodenum is more movable and exerts more traction on the gall bladder than does the pyloric portion of the stomach. The traction is due in large part to the impossibility of keeping the dogs prone and restraining their activity. The normal wall of the gall bladder of the dog is very thin.

In the 10 cases of cholecystogastrostomy with or without occlusion of the common duct there was no operative mortality. In 7 of the 10 cholecystogastrotomies the common bile duct was occluded and in the others was left intact.

The general postoperative condition of the 14 dogs upon which successful operations were performed seemed practically the same. Judging from the animals' activity appearance and ability to gain and maintain weight the health of these dogs seemed to be only slightly below that of the control groups. None of the animals showed gross evidence of jaundice and all gained weight slowly and maintained it until they were killed.

The dogs were killed at periods varying from 1 to 4 months after the operation. In all of them the gall bladder liver and bile ducts had become infected and showed definite evidence of a pathological change. In most of them the gall bladder was contracted. The walls of the gall bladder were thickened the mucosa was congested and granular and sometimes ulcerated and microscopic sections showed evidence of subacute and chronic inflammation. The liver showed pathological changes varying in degree from slight points of central necrosis with scattered leucocytic and lymphocytic infiltration to more marked necrosis with diffuse and miliary subacute and chronic inflammation particularly around the ducts and vessels. In several

instances enlarged hyperplastic lymph nodes were found in the region of the anastomosis. In dogs subjected to cholecystoduodenostomy the gall bladder was filled with hair and contained intestinal round worms which had worked their way up into the liver through the ramifications of the biliary ducts. These gall bladders presented areas of superficial ulceration and subacute cholecystitis. The biliary passages and the liver also showed subacute inflammation.

In the dogs living for a month or more after the operations with occlusion of the common duct the common and hepatic ducts showed marked dilatation. Single and double ligation of the common duct usually will not produce a permanent occlusion. Double or triple ligation with severance of the common duct between the distal ligatures was found more satisfactory.

Dr. B. W. believes that cholecystogastrostomy is winning favor over cholecystectomy and cholecystostomy. He describes the technique in detail. The indications for the operation are the following:

1 Common duct obstruction in patients who are poor surgical risks because of extreme illness complications or is associated physical diseases.

2 Cases of residual hepatic duct stones in which secondary common duct obstruction is probable.

3 Chronic or intermittent jaundice of obscure origin or jaundice secondary to inoperable diseases of the liver pancreas or duodenum causing obstruction to the common duct.

4 Infection of the gall bladder.

5 As a substitute for external drainage consequent to operations on the upper abdomen after the removal of gall stones.

6 Gastric ulcer. When feasible in such cases the operation should be performed at the site of the perforation of a pyloric or duodenal ulcer.

7 For the free drainage of bile in acute pancreatitis.

8 As a routine measure in inflammatory conditions of the bile ducts. In such cases the operation should supersede cholecystostomy because as the bile follows the path of least resistance cholecystostomy is frequently followed by the loss of practically the entire output of the liver and a condition of acholia.

9 Cases of stricture of the biliary ducts other than that due to stone. In such cases cholecystogastrostomy should supersede choledochotomy and plastic surgery because it is simpler and safer and gives equally good results.

Cholecystogastrostomy is contra-indicated by cancer and gall bladder neoplasms gangrenous cholecystitis atrophy or contraction of the gall bladder and obstruction of the cystic duct other than that produced by stone. F. M. C. ROBITSHIEK, M.D.

Sweet, J. L. The Importance to Surgery of the Cystic Duct. *J. Surg.* 9:731-74.

The cystic duct is an extremely tortuous tube containing on its inner surface throughout its entire length folds of mucous membrane arranged in

a more or less spiral fashion which divide the duct essentially into a series of small chambers. The openings from one chamber into the next are not opposite each other but are so placed that the channel of flow is rendered even more tortuous than would be determined by the external form alone. The number of these valves and the shape of the chambers formed by them are inconstant.

The purpose of this curious arrangement is not clear. It may be a mixing device. It may be a device to impede the flow of bile from the gall bladder. Such an arrangement would offer resistance in direct relation to the viscosity of the fluid flowing through it. According to the work of Rous and McVlaste, bile flowing out of the gall bladder (if bile ever normally flows out of the gall bladder) would possess at least ten times the viscosity of bile flowing into the gall bladder, since it is at least ten times as concentrated as the bile.

Whatever the normal function of the small chambers along the cystic duct, Street is convinced that their size and shape determine the size and shape of the multiple faceted gall stones found in the gall bladder. In every gall bladder containing multiple faceted gall stones that he has obtained with ducts attached, the multiple faceted stones found in the gall bladder were seen to fit into the pockets along the cystic duct, at the neck and infundibulum of the gall bladder, and the shape of these pockets could be predicted from the form of the stones found in the gall bladder. Street believes that these stones must arise as firm, elastic, high logs in the pocket, and assume the shape of the latter. Chemical processes then take place which change the colloidal mass into calculi. The cystic duct becomes blocked. The pressure which in the presence of a competent sphincter of Oddi causes a dilatation of the entire extrahepatic duct system after cholecystectomy forces the stone out of the cystic duct into the gall bladder, since the blocking of the duct by the stone produces a functional cholecystectomy. The process then repeats itself until one may find a large collection of stones of the same general shape or of varying sizes and shapes according to the character of the pocket formed by the valves of the latter.

The author maintains that the valvular arrangement of the cystic duct is responsible for increased tension in the gall bladder and consequently for all gall bladder pain, since tension alone is the cause of this symptom. To overcome it, he recommends more complete removal of the cystic duct or section of the muscle of Oddi. J. N. J. M. NE. MD.

Ivy A. C. F. Experimental Pancreatic Secretion. J. 1
M. 1. 971. 3

The external pancreatic secretory response to a meal may be divided into two phases with reference to the sites at which the stimuli are acting—the cephalic phase and the intestinal phase. The intestinal phase is the more important as the amount of secretion produced in this phase is greater than that produced during the cephalic phase.

It is quite obvious that there are certain substances in the intestinal tract that excite pancreatic secretion. Recently bile has been added to the already long list. Several theories have been advanced to explain the mode of action of these substances.

Experiments have shown that acid, such as tenth normal hydrochloric acid, increases the pancreatic secretion when it is applied to the intestinal mucosa. This may be due to the entrance into the blood of a hormone which stimulates the pancreas. Mellanby has shown that the introduction of bile into the duodenum causes pancreatic stimulation. The bile salts seem to be the exciting agents.

The possibility that a local nervous mechanism is operating in bile stimulation has not been ruled out by physiological experiments. It is evident that the pancreas is adequately stimulated by food even in the absence of bile, and that therefore bile is only an adjuvant and not an essential alimentary stimulant.

Olive oil introduced into the stomach has been found to stimulate pancreatic secretion within a short time. In experiments in which the author introduced olive oil into the stomachs of dogs with a pancreatic fistula, he found that there was usually a pancreatic stimulation in from five to ten minutes but this did not occur invariably. The same was true when olive oil was given through a tube to dogs with a pancreatic transplant.

It is quite likely that several factors operating together in the intestine cause the stimulation of pancreatic secretion.

Although the pancreatic secretion is the most important of all the digestion secretions, less is known about it than about the gastric secretions. Comparatively little research has been done on the effect of various digestive conditions on the secretory mechanism of the pancreas.

The author has been attempting to find a non-toxic dye which will give accurate knowledge concerning the quality and quantity of pancreatic secretion and eliminated by the pancreas instead of by the stomach, intestinal mucosa, or liver. Although he had tried thirty-three dyes, only two have appeared in the secretion. These two were methylene blue and methylene violet. From 30 to 60 mgm. of the dye was dissolved in 25 cc. of physiological salt solution and given intravenously. Methylene blue gave a faint tinge to the secretion after two hours. Methylene violet gave a better reaction but proved somewhat toxic and was eliminated in slight amounts in the gall bladder bile.

From these observations it is evident that the pancreas is highly selective in the elimination of dyes. HAROLD M. CAMP, M.D.

Desplas B. and Roux Berger J. L. Rupture of a Pancreatic Hematocoele into the Peritoneal Cavity (Hémotélépancréotomie péritonéale). B. H. 1921. 49.

The patient whose case is reported was a man 26 years of age, who was operated upon May 27, 1915, for

ulcer of the duodenum a posterior transmesocolic gastro enterostomy being performed. The operation was followed by recovery. After a time however there developed in the left hypochondrium a painful point which had no relation to the ingestion of food. On July 10 the patient had a sudden attack of intense pain associated with vomiting, diarrhoea and fever of from 38.5 to 39.3 degrees C. An emergency operation performed on the sixth day revealed a pancreatic hæmatocele which had ruptured into the peritoneal cavity. The patient recovered.

There was no fatty necrosis of the pancreas in this case. In the few cases without necrosis that have been reported by others the mortality was much higher than in those with necrosis. In the authors case there was no disease of the bile tract in both the first operation which was performed by Roux Berger and the second one which was performed by Desplas the bile tract was found normal. The authors regard it as questionable whether the gastro enterostomy had anything to do with the pancreatitis. They believe it possible that the pain and pancreatitis were the result of a disturbance of duodenal function but no other case of hæmorrhagic pancreatitis after gastro enterostomy has been reported and Desplas suggests that a disturbance of pancreatic function may be responsible for the fatal complications of gastro enterostomy attributed to vicious circle.

AUDREY G. M. ROBIN, M.D.

MISCELLANEOUS

Begg R. C. The Urachus and Umbilical Fistulae
Surg Gynec & Obst 1917 vol. 65

The urachus is the modified superior extremity of the bladder and is derived from the ventral cloaca. At birth it is at the level of the umbilicus and attached by three fibrous bands one to each umbilical artery and one passing into the umbilical cord. Following birth the bladder descends taking the urachus with it and dragging the fibrous cords along.

In a series of dissections of the bladder and urachus Begg found a communication between the two in 33.3 per cent. In the rest the urachus was patent but ended blindly just external to the mucous membrane of the bladder. Urinary fistula of the umbilicus is never due to a patent or persistent urachus it is caused by urine extravasated from the bladder which travels along the transversalis fascia.

The author analyzes fifty eight cases of congenital umbilical urinary fistula which he collected from the literature and concludes that these cases prove that the urachus is developed from the ventral cloaca and that the urachus does not communicate with the umbilicus.

The treatment of urinary fistula at the umbilicus is surgical.
I. I. WARD BISHOP, M.D.

Truesdale P. E. The Thoracoperitoneal Operation for Hernia of the Diaphragm
Ann Surg 1917 vol. 68

Cases of diaphragmatic hernia have been reported in which it was impossible to close the diaphragmatic opening by the peritoneal approach. Failures by the thoracic route have been fewer but with the usual procedures the mortality varies from 5 to 50 per cent on account of accompanying intestinal obstruction.

In more than 50 per cent of cases the colon is found above the diaphragm. Although the stomach and small intestines may pass through the opening with the transverse colon the site of constriction is almost invariably in the transverse colon. In cases with acute intestinal obstruction the mortality is higher than that of acute intestinal obstruction in general because closure of the aperture is necessary to make the operation complete and this requires extra time.

Reduction of the mortality from 50 to 5 per cent can be accomplished by a two stage operation consisting in (1) appendicostomy or cæcostomy to relieve the obstruction and (2) an operation for repair at the time of election. The preliminary operation promptly relieves obstruction and provides a safety valve in case of recurrence or distention during convalescence from the repair.

In the use of the thoracoperitoneal route described by the author a large window is made in the thoracic wall by a lapel incision. Beginning at the lower edge of the sixth rib in the post axillary line the thoracic wall is divided in a downward direction with severance of the seventh and eighth ribs. The incision then turns at a right angle and follows the eighth intercostal space forward until it reaches the cartilaginous portion where it turns upward and again crosses the eighth and seventh ribs. The flap so formed which includes the pleura is completely turned upward on its base the diaphragm being thereby exposed from above. The under side may be approached when necessary by continuing the anterior vertical portion of the incision downward through the left rectus muscle. In some cases it may be advisable to split the diaphragm from its anterior edge to the hernial orifice. This permits visible access for the separation of adhesions and facilitates closure of the ring. The peritoneal wall is then closed. The thoracic flap is turned back and closed tightly with interrupted sutures. The procedure is shown in several illustrations.

The author reports a case in which a congenital hernia with extensive adhesions above and below the diaphragm was successfully repaired by his method after two attacks of acute intestinal obstruction and three attempts at repair by the peritoneal route.
MAURICE MEYERS, M.D.

GYNECOLOGY

UTERUS

Shaw W F Wertheim's hysterectomy for Carcinoma of the Cervix *L 197 cu 538*

Wertheim's hysterectomy has been performed in England for over 20 years. Of 76 patients upon whom Shaw operated more than 5 years ago 16 (1 per cent) died as the result of the operation.

(2.6 per cent) died from some other cause 25 (33 per cent) developed a recurrence 3 (3.8 per cent) cannot be traced and 30 (39.5 per cent) are now alive and well.

Of 50 patients operated upon more than 7 years ago 11 died immediately after the operation 1 died from another cause 18 developed a recurrence 4 cannot be traced and 16 (32 per cent) are now alive and well.

Of the patients upon whom Shaw operated more than a year ago 68 were treated with radium previous to the operation. Of these 8 (41 per cent) are alive and well whereas of the 59 who were not treated with radium only 18 (3 per cent) were now alive and well.

ALBER MOLLIER M.D.

ADNEXAL AND PERIUTERINE CONDITIONS

Shaw W Ovarian In the Human Ovary. Its Mechanism and Anomalies *J Obst Gyn F 197 409*

The features of follicle ripening the mechanism of the approach of the ripening follicle to the surface of the ovary and the histological changes at the stigma immediately before and after ovulation are described and an account given of the method of temporary and permanent closure of the stigma.

It is a typical finding in hyperæmic ovaries that ripening follicles stand out distinctly because of the gross congestion of the theca interna layers of the follicle. Moreover these follicles can be seen easily with the naked eye and are responsible for the majority of haemorrhage occurring in such ovaries. In all cases however the hyperæmia is limited to the theca interna layer and as the granulosa layer is not vascularized there is no blood in the cavity.

Since the capillaries in the proliferating theca interna layer are young and delicate it follows that if the primary ovarian hyperæmia is extreme the wall of the capillaries may be unable to resist the capillary pressure. An interstitial haemorrhage then occurs in the theca interna layer and the resulting condition is a follicular hæmatoma.

The hæmorrhage is bounded internally by the membrana limitans interna of the follicle and does not invade either the granulosa layer or the cavity. Externally it is surrounded by the dense stromal tissues of the cortex. In no case has a large diffuse

stromal hæmatoma been seen the hæmatoma is always localized around the follicle.

There is obviously a close parallel between the etiology of this form of hæmatoma and the etiology of corpus luteum hæmatoma. In both cases there is a primary ovarian hyperæmia and in both cases this leads to the rupture of the walls of delicate newly formed capillaries. In the case of the follicular hæmatoma the latter are the capillaries of the theca interna layer of a ripening follicle whereas in the case of corpus luteum hæmatoma they are the capillaries of the granular lutein layer when this layer is becoming vascularized.

E L CORLL M.D.

MISCELLANEOUS

Johnstone R W Developmental Changes During

Adolescence *B 197 44*

Paton J H P The Influence of the General Health on Menstruation *B 197 947*

444
Clov A E S The Prevention of Menstrual Troubles *B 197 446*

JOHNSTONE defines the period of adolescence in the female as extending from the time when the changes of puberty begin to manifest themselves to the time when the function of menstruation has become regularly established. The secondary sex characters have become fully developed and the girl has practically reached her full physical stature.

The changes occurring in the anatomy and physiology of the body during these years are the most momentous of the entire lifetime. The almost universal child develops definitely and rapidly toward femininity. Complete development takes time. Even the regular establishment of menstruation does not in itself indicate complete physiological or anatomical maturity. The bony pelvis probably does not reach its full size and width until the twenty-second or twenty-third year. The young woman may then be said to have reached the age of nubility and can become a mother with safety. Long before this however the external and internal organs of generation have acquired the adult characters and functions: the uterus, tubes and vagina have developed to more mature proportions the ovaries have increased in size the regular ripening of the follicles the discharge of ova and the development of corpora lutea have begun and maternity is possible.

With these changes there are alterations in the blood and lymph balance and in the biochemistry of the body. The entire organism is concerned in the changes of puberty and adolescence. As the result of modern research the old belief that the development of the secondary sex character is due wholly

to the internal secretions of the ovaries must be modified. We now have reason to believe that all of the glands of internal secretion are involved in the process. An additional impetus toward femininity is given by fertilization of the ovum by a particular variety of spermatozoon.

In conclusion, Johnstone emphasizes that puberty and early adolescence are critical periods in which unhygienic methods of living may easily produce disastrous results affecting both body and mind.

PATON states that the regimen practiced during the premenstrual phase is probably of greater importance in securing normal menstruation than that carried out during the stage of hemorrhage.

He calls attention to the fact that since the introduction of regular games into school curricula the health of girls has been greatly improved. By such exercise a high standard of physical and mental fitness is assured when the changes of puberty appear. With the supervision of menstruation it becomes necessary to decide whether active games should be permitted during the period or not. It is undoubtedly true that active games may be continued by many girls during menstruation without harm and perhaps even with benefit. Some gynecologists advocate this practice in schools, believing that it lowers the incidence of dysmenorrhea. Paton, however, doubts the wisdom of the recommendation, basing his opinion on the results in the St. Andrews School for Girls. In this institution games, gymnastics, Swedish drill, and dancing are forbidden during the first 3 days of the menstrual period, but walking is continued except by those who are definitely incapacitated. So satisfactory are the results that Paton sees no reason to make any change. The girls of this school are drawn from the well-to-do classes. Excluding occasional dysmenorrhea, 90.4 per cent are free from regular pain. In regard to the regularity of menstruation, Paton found that of 78 girls questioned at the age of 17 years, only 43 experienced regular menstruation. The type of irregularity was intermittent amenorrhea.

CLOW states that menstruation can be and therefore should be free from suffering of any kind. This was the case in 89.2 per cent of school girls studied and 94 per cent of students leaving a training college. Clow has found it very rare for symptoms to occur during the first few months of menstrual life, and that if a girl is allowed to be guided by her own inclinations during the period she will nearly always exercise as usual. Her desire for activity is no more diminished than her desire for food or sleep.

Clow therefore permits menstruating girls to have their warm baths to cycle to play hockey and tennis, and to do drilling and gymnastics as usual. Emphasis is laid on the importance of such exercise on the first and second days of the period. As the result of such instruction the proportion of girls who suffer at the period has been reduced from 46.7 to 10.8 per cent.

ALBERT M. VOLLMER, M.D.

CHATTILLOU F. Sterility of Uterine Origin: Diagnosis and Treatment (La stérilité d'origine utérine: diagnostic et traitement). *Gyn et Obst* 1917, xii, 81.

DOUGLASS E. Sterility of Tubal Origin: Diagnosis and Treatment (La stérilité d'origine tubaire: diagnostic et traitement). *Cydec t b t* 1927, xii, 111.

CHATTILLOU is inclined to believe that in sterility of uterine origin, cervical conditions such as stenosis, antelexion, inflammation, and secretory obstructions play the most important role. He discusses the various causes at length and states that in his opinion the gynecologist should never tell a woman that conception is impossible even if the findings of examination and tests point to that conclusion.

The treatment of sterility in the female should be preceded by examination of the male—gonorrheal tests and a study of the spermatozoa—and, unless contra-indicated by tubal insufflation and hysterosalpingography.

Any uterine infection may be the cause of sterility. Most commonly responsible are those localized in the cervix. Sterility may be the result of a condition entirely of uterine origin or of a uterine condition associated with pathological processes in the tubes or ovaries.

Certain uterine malformations may be corrected surgically so that fecundation, pregnancy, and delivery may be possible, but this is rare.

Uterine hypoplasia is amenable to treatment except when the uterus is of the fetal type, i.e., less than 4 or 5 cm. in length. The treatment of hypoplasia gives better results if it is begun at an early age. It should be directed toward the development of the organ by direct action or by indirect action through the ovaries. The general health must be taken into consideration. Among the best methods are slow and repeated dilatations, uterine massage, balneotherapy, opotherapy, and electrotherapy, especially diathermy. The functional stimulation of the ovaries by the roentgen rays is not to be recommended at the present time.

Cervical stenosis is not such an obstacle to fecundation as has been believed. It is frequently associated with other conditions such as uterine deviation, cervicitis, and malposition of the cervix.

Of all uterine deviations, antelexion is most often the cause of sterility. Retrodeviation plays a less important role than associated adnexal lesions. Cervical stenosis may be treated by slow and repeated dilatation with tents. This gives better results than dilatation with metallic bougies. Intra-uterine pessaries may be of value if they are left in place for a short time and during this time the patient remains under medical care. Good results have been obtained also from stomatoplasty.

For the correction of retrodeviation, pessaries may be tried. The author is not a strong adherent of this procedure, but is aware that it is frequently followed by pregnancy. He believes that low abdominal hysteropexy and shortening of the round ligaments are the methods of choice.

Fibromyomata may or may not interfere with fecundation. Those of the submucous type are most apt to do so. In case of submucous and interstitial fibromyomata the alveolar and endometrial changes may play a more important part in the causation of sterility than the neoplasm. Submucous myomata and fibroids must be surgically extirpated by the vaginal route. Suberous and interstitial tumors should be left alone unless they go to a considerable size. The influence of small tumors is negligible. A contraindication to intervention is a blood clot myomectomy which permits examination of the alveoli. While good results have been obtained with the roentgen ray by a pert roentgen treatment is not to be recommended for general use.

The function of the uterine mucosa is regulated from changes in the endometrium. Metropathic changes in the mucosa are responsible for sterility and require special treatment. Often curettage necessitates to establish the diagnosis as the usual signs—metrorrhagia or menorrhagia—are associated with polyp and cancer. The non-inflammatory endometrium usually leads to ovarian disturbance and requires treatment of the ovaries.

Polypoid curettage may stop the uterine hemorrhage but often the cure is transitory. On the apical part of the uterus of corpus luteum is of great value in regulating menstruation.

Treatment of the pleura the roentgen ray has been employed with success and seems to be devoid of danger. In some cases x-ray irradiation has been successful but this method should be used only as a last resort as it may cause permanent damage to the ovaries.

Cervical endometritis and constrictions of considerable importance in the causation of sterility require energetic treatment. To be efficacious the treatment must aim at complete destruction of the cervical mucosa. Dilho cautery and amputation of the cervix give good results with little risk so far as distention is concerned.

Chronic endometritis of the corpus is the cause of sterility less often than of repeated abortion. A history of gonorrhea or puerperal fever frequently suggests the cause of sterility. Coercage some times univiable when the chief sign of the condition is uterine hemorrhage but is responsible for many infections of the tube. Great patience is necessary in the use of the urethra. It is usually an indication of infection if there is all treatment of the uterine cavity must be preceded by cure of the cervix. It is at the end of the cervix which constitutes the chief obstacle to fecundation.

Douglas describes the various methods of a certain degree of permeability of the fallopian tubes and the different operations that have been proposed for

the treatment of sterility of tubal origin. He draws the following conclusions:

1. Before surgical treatment is attempted for sterility believed to be of tubal origin an examination of the peritoneal fluid should be made in order to rule out azoospermia which is responsible for about 15 per cent of cases of sterility.

2. According to the findings of tubal insufflation on cases of sterility may be divided into 2 groups—the one with open tube constituting about 4 per cent and the other closed tube constituting 4 per cent. The insufflation test is not always decisive. There are cases in which it must be repeated several times. During the interval in such case medical treatment (massage and douches) should be administered. There are also cases in which the tubes are found to be closed at the initial test but open at a subsequent test. In such case the patient may become pregnant as the result of the therapeutic action of the test. Pregnancy has occurred in from 8 to 1 per cent of all cases of insufflation and in from 28 to 32 per cent of those in which the tubes were made permeable by the test.

3. By intra uterine injections of lipiodol the final stage of the insufflation test may be verified and the site of the closure and the exact site for surgical intervention may be determined.

4. Up to the present time most operations on the fallopian tube have been done for salpingitis only. Occasionally have surgeons intervened solely on account of tubal sterility. In some cases the surgeon has taken advantage of a other operative indication (paucal salpingo oophoritis or torsion of the uterus appendicitis) to correct obliterating tubal lesions. Today because of the knowledge that can be gained regarding the exact site of such lesions it is rational to propose an operation to be performed solely to obtain permeability of the tube.

5. The operation which gives the best results in salpingitis is (the ligation of adhesions and operation of the glutinated fibrin ends). The operation that is performed most frequently is salpingostomy. Up to the present time favorable results have been obtained in only about 15 per cent of cases but they are gradually becoming more frequent. Tubo-ovarian implantation is still being studied. It may give very favorable results as it establishes tubal permeability with practically an intact tube. In extension of the fallopian tubes into the ovaries implantation may be done with some hope of success.

6. Cases of pre-natal following the operation described have not been numerous but they are increasing as the result of the accurate diagnosis and the proper choice of operation permitted by the modern diagnostic tools and as the result of improvement in the technique. S. L. to I. P. and M. D.

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Siegel I A Liver Function in Pregnancy 1m
J Obst & Gynec 1927 xiv 300

In 174 cases of pregnancy 15 injections of bromsulphalein were given. There were no reactions and no thrombosis. In 3 cases in which the dye was injected into the surrounding tissues or leaked out of the vein local fibrosis was produced.

The author draws the following conclusions:

1. Bromsulphalein is a valuable agent for the testing of liver function. It is free from the dangers of phenoltetrachlorophthalein.

The blood pressure is perhaps not a true indicator of the toxic state. Hypertension without impairment of liver function may mean a good prognosis. Retention of bromsulphalein with a normal blood pressure perhaps indicates a mild type of involvement which requires watching but will probably take care of itself.

3. In cases of pre-eclampsia bromsulphalein is valuable in indicating the degree of toxicity and the reaction to treatment.

4. It is valuable in differentiating nephritis from pre-eclamptic and eclamptic toxemia.

5. It is useful in differentiating neurotic from toxic vomiting and is a guide to the results of treatment and the need for surgical interference.

6. In case of eclampsia it is perhaps useful in indicating the prognosis. F L CORNELL M D

Pierson R N Fibromyomata and Pregnancy a Study of 250 Cases 1m J Obst & Gynec 1927 3 3

In 3836 consecutive pregnancies there were 191 clinically important fibromyomata an incidence of 0.6 per cent. Fifteen per cent were in the pelvis. Spontaneous abortion or premature labor occurred in 41 per cent of the cases. The incidence of important obstetrical abnormalities and complications is markedly increased by fibromyomata. Major operative interference was necessary because of the fibromyomata in 4 (2.14 per cent) of the 191 cases and in 13 per cent of the 30 cases in which the fibromyomata were situated in the pelvis.

The gross maternal mortality was 3.2 per cent and the mortality due to obstetrical causes 2.08 per cent. The gross fetal mortality was 35.6 per cent. The mortality in cases in which the fibromyomata were probably responsible was 0.7 per cent. Prematurity was the chief cause of fetal death. In Pierson's opinion the literature does not sufficiently emphasize the danger of fibromyomata to the mother and child.

During the pregnancy a special effort should be made to prevent abortion and premature labor.

Interference is indicated only by severe pain, bleeding or pressure which does not yield to treatment. At term a test of labor is often desirable.

If obstruction from the tumor persists or some other variety of dystocia is marked during labor, caesarean section should be done with myomectomy or hysterectomy according to the indications. The third stage of labor requires care to prevent hemorrhage from a poorly contracting uterus.

In the puerperium fibromyomata may undergo degeneration and necrosis. They may slough into the uterine cavity and become infected. When signs and symptoms point to the tumor itself as being primarily affected, radical surgery is indicated, but when the tumor is simply included in a general morbid process such as acute uterine infection, the indications for radical interference are less definite.

In the discussion of this report RUBIN said that he prefers conservative treatment even in the presence of slight bleeding.

LOEW stated that a large number of pregnant women with fibroids will take care of themselves during labor and that he lets the women go to term and gives them a test of labor.

DAVIS reported two cases of pedunculated fibroids which were operated upon during pregnancy. In one the pedicle was strangulated. Both patients recovered and were delivered at term.

KOSMAK took exception to the attitude toward myomectomy during pregnancy and said that fibroids should be regarded more seriously before and after labor than during labor.

IRANK stated that in many cases the most favorable time for myomectomy is about the fourth month.

HEALEY stated that it is better to do the myomectomy in the presence of the pregnancy and take the risk of a possible subsequent spontaneous abortion than to interrupt the pregnancy with the idea of doing a myomectomy later and hoping that the patient would then conceive and go to term.

L I CORNELL M D

Hofbauer J A Study of an Undescribed Type of Premature Separation of the Normally Implanted Placenta 1m J Obst & Gynec 1927 3 86

The specimen described is of interest on account of the very small area of placental separation which caused pronounced clinical symptoms. The concealed hemorrhage was sufficiently extensive to peel the membranes from the entire uterine wall except at the placental site. *A priori* it would seem improbable that a concealed hemorrhage of 600 c.c. could arise from the minute area of separation which was detected in the fundal region. The

hemorrhage remained concealed because of the firm adherence of the membranes to the lower uterine segment. For several hours preceding the onset of the serious condition only a small amount of blood found its way into the vagina.

Hysterectomy as alone it is believed to be the procedure which could best assure hemostasis since the presence of multiple myomata and extensive hemorrhagic infiltration pointed to a seriously damaged condition of the uterine muscle with the probability of enormous postpartum bleeding if the uterus was not removed. I. L. C. L. M. D.

Watson J. St. G. Three Cases of Rupture of the Uterus at the Site of a Previous Cesarean Section. *L. T. Q. J.* 59%

In one of the author's three cases of rupture of the uterus at the site of a cesarean section scar the rupture occurred before the onset of labor. In each case the placenta was located under the site of the scar. W. T. R. F. L. M. D.

LABOR AND ITS COMPLICATIONS

Hewitt J. To a T. D. and B. D. The Relative Merits of Instrumental and Medical Methods of Inducing Labor. *J. Obst. & G. B. I. E. p. 9.*

The introduction of the intra-uterine bougie is a more certain method of inducing labor than Watson's medical technique. Reinsertion of bougies is more successful than repetition of medical induction. Watson's method particularly ineffective in inducing premature labor. Its inadequacy is the more apparent the more premature the case. The bougie however is equally effective throughout the various stages of pregnancy. A preliminary unsuccessful attempt at Watson's method does not increase the success of subsequent instrumental induction. The preliminary advantage of a instrumental over medical induction is certain of action.

The larger association with medical induction are less common than the association with instrumental induction. Moreover the dangers of instrumental induction (notably sepsis) can be avoided by induction on faults where the following medical induction can occur only if the upper ex (rare septic infection) is not uncommon after the use of the bougie. The time interval neither the sole nor the main factor in the product of forceps. The author suggests that the chief danger in leaving the bougie in the uterus for more than 4 hours then in reinserting the bougie. Will the time interval influenced in some way by the accuracy and urgency of the indication on the not necessarily dependent upon these facts.

The number of bougie introductions has no relationship to the success of the method. The coincident administration of pituitary tends to hasten the action of the bougie although the uterus. Watson's method may be employed with success to reduce uterine contractility in cases of arrested

first stage. The probable failure of Watson's method is a safeguard against accidental induction of premature labor by miscalculation of dates as in inductions of convenience and cases of supposed postmaturity. Honeyman's investigations suggest that pituitrin is present in the blood in increased amount during normal labor.

The author recommends that in non-urgent cases Watson's method be tried and repeated if necessary, that if the case is or becomes urgent instrumental induction be employed and that whenever bougies are used pituitrin be injected intramuscularly at regular intervals. E. L. CO. NELL M. D.

Gibbs G. F. An Investigation into the Results of Breech Labor and of Prophylactic External Cephalic Version During Pregnancy with Note on the Technique of External Version. *J. Obst. & G. B. I. E. p. 97.*

In 22 per cent of 21 cases of delivery—35 those of primiparae and 186 those of multiparae—the child was born dead and of the children who were born alive 13 per cent died within the first ten days. Of the uncomplicated cases 29 were those of primiparae with a fetal mortality of 28 per cent and a neonatal death rate of 35 per cent and 105 were those of multiparae with a fetal mortality of 14 per cent and a neonatal death rate of 1 per cent.

These figures suggest that this series of cases as an extraordinary unfortunate one with appalling results or that the general attitude toward the dangers of breech labor is unduly optimistic and the fetal mortality usually given is far too low.

The remedy must lie either in improvement of the technique of breech delivery or the elimination of this unfavorable presentation so far as possible.

External version during pregnancy seldom fails in its object and is free from serious risk to either the mother or the child. It should be attempted as a routine soon after the thirty-second week of pregnancy and if it fails a further attempt should be made soon after the thirty-fourth week. If necessary an anæsthetic should be given before the delivery is made that version is impossible.

F. L. CO. L. M. D.

MISCELLANEOUS

Watson B. P. The Responses of the Obstetrical Teacher in Relation to Maternal Mortality. *Med. J. Obst. & G. B. I. E. p. 19.*

The maternal mortality from all causes in all countries ranges from 4 to 7 per 1,000. In the last 50 years it has shown little change. While there has been some reduction in the last 50 years the decrease has not been so rapid as that noted in the general death rate.

Watson believes that today there is a greater need than ever to warn against the delay of some midwifery since because of increased hospital facilities the attendance of trained nurses and the care of the

which a set up for operation can be made there is more temptation to interfere.

With regard to the training of the medical student in obstetrics he states that clinical study should be preceded by a course of theoretical instruction largely in the form of lectures, demonstrations and the reading of a standard textbook. In the planning of the course of clinical instruction emphasis should be placed on diagnosis. Diagnosis can be learned only in the prenatal clinic and prenatal wards. Also in the prenatal clinic the student should be taught the importance of the various complications of pregnancy especially the early and late toxæmias, the anæmias, the heart affections and the focal infections. When abnormalities are detected he should hear the advice given regarding them.

With such teaching and practice in the prenatal department the student is in a position to study and conduct labor. He should have been drilled in aseptic technique by his surgical training but according to the author's experience he is often very deficient in this. The technique should be as simple as efficiency will permit.

A not inconsiderable part of the total maternal mortality is due to antepartum hæmorrhage. The student must be impressed with the importance of this complication and the necessity for consultation and hospital care as soon as it becomes evident.

When sepsis supervenes the student should be taught to visualize the processes going on in the body and to realize the danger of interference with the interior of the uterus.

When hospital accommodation is obtainable it is easier for the practitioner to live up to his ideals in the conduct of labor than when he must care for the case in the patient's home. In the hospital his patient is watched by competent internes or nurses while he proceeds with the rest of his day's work and he is called only when necessary. Watson suggests that somewhat similar advantages might be obtained in obstetrical practice outside the hospital by active co-operation between a trained obstetrical nurse and the doctor.

In the discussion of this report NORRIS said that in recent years better results have been obtained as the result of more frequent hospital care of obstetrical cases. The trouble with the system of team work between a specially trained nurse and the doctor in remote districts is that the work would fall largely on the associated trained obstetrical nurse. Norris would prefer the slogan "more obstetrical hospitals."

BLAND said that the medical student must be impressed with the well known truths that successful obstetrical practice requires zealous prenatal supervision and an aptic watchful waiting plan during labor.

NICHOLSON stated that much of the time spent by the medical student on the benches or assisting at gynecological and obstetrical operations is wasted and that if it were devoted to the study of prenatal cases and the use of the midpelvic and low forceps both the student and his future patients would be benefited.

E. L. CORNELL M.D.

GENITO-URINARY SURGERY

ADRENAL KIDNEY AND URETER

Legue F. and P. I. of The M. T. I. of the Re-
nal Telvis Studied in the Freshly Excised
Kidney (I. m. t. d. b. t. t. d. u. l. e. r.)
f. t. h. e. m. t. d. b. t. t. d. u. l. e. r.
q. b.

The authors studied the m. t. I. of the renal pelvis in 4 kidneys from which excised because of tubercular hyaluronophro. cancer or stone. They determined the pelvic color and fluid and watched the escape of the fluid from the ureter. In 3 instances contraction occurred spontaneously. In the other 1 it produced by action on the ureter pinching or touching the wall of the pelvis. picking gravel or sudden filling of the pelvis or stimulation by the electric current.

The results were the same. Half the mole of excitation. For a short time to effect was noted. The pelvic contraction acted en masse rapidly and energetically. The subsequent expansion as much slower. During the resting period which followed and was very long repeated excitations had no effect.

The contraction of the pelvis was strongest early in the experiment and became progressively until the final death of the kidney. Excitation in the region of the ureter produced a typical contraction. This produced from the site of excitation to the pelvis. It also affected the pelvis as far as the insertion of the catheter. The contraction of the pelvis was not followed by ureteric ejaculation.

Excitation in the region of the pelvis for the catheter caused contraction of the pelvis which retracted in the ureter. Ureteric contraction occurred at the beginning of the distention which followed.

Excitation of the bulbar region is one of the ureteral function produced. The catheter appears to have corded. In the case of contraction started from the point of excitation one running up and to the pelvis and the other downward along the ureter. The time elapsed between the first and second ejaculation although the contraction of the pelvis continued. The phenomena were observed in 6 kidneys that were distended with colored urine. A total of 15 different phenomena as seen in the case of the non-distended pelvis. In the case in which the ejaculatory apparatus might have been considered perfectly normal excitation of the ureter and pelvis produced contractions with ejaculation. The reaction of the bulbar gland produced contraction followed by ejaculation. It appears that the bulbar region has a physiological individuality which is of importance in the pathogenesis of pelvic retentions.

The results obtained in these examinations corresponded in general to those obtained by pyeloscopy performed shortly before nephrectomy. In particular they confirmed the presence of a sphincter function at the juncture of the pelvis and ureter which controls evacuation of the pelvic contents and assures its intermittent rhythm. Excitation in this zone provokes sometimes ejaculation sometime retention on from spasm. It is evident that the excretion of urine is not a hydraulic phenomenon but is dependent upon a delicate neuromuscular apparatus which in its function resembles similar apparatus belonging to other hollow organs.

In the discussion of this report CHEVASSU cited a kidney in which he had produced contractions over a period of 50 minutes by pressure on the capsule. It seemed to him that the contractions were produced by the increase in the pressure of the intrarenal fluid.

FLORENCE CARPENTIER

Perrin W. S. A. N. m. l. l. Placed Right Kidney
P. S. S. ng T. o. Pel. e. and T. o. U. ters Op-
ing Separ. t. ly into the Bladder the Center
P. t. of the Kidney Bet. cen the Pel. e. Be. g.
Occupied by a Gr. it. Tumor. P. R. S. S.
M. d. L. o. d. 97. 87.

The specimen described was removed from a man 54 years of age who gave a history of recurrent painless hematuria for eight months with the occasional passage of clots which caused difficulty in micturition.

Cystoscopy revealed a ureteral orifice on the right side of the bladder. Blood was passing from the upper one.

Indigoamine appeared from the left ureter and from the right lower ureter in ten minutes. No color was observed coming from the right upper orifice in a period of five minutes.

The blood urea was 0.058 per cent. The urine was sterile and contained nothing abnormal except a few red cells.

The pyelogram revealed that the pelvis to the kidney on the right side the lower one of which was somewhat larger than the upper one.

HARRY A. FOLLMER

Perrin W. S. An Ectopic Kidney, it is Triple
U. ter. Remo. d. from a M. n. Aged 41 Y. a. s.
P. R. S. S. M. d. L. i. 97. 86.

The patient whose case is reported gave a history of 3 attacks of pain in the left iliac region radiating to the pelvis and associated with hematuria of frequency of urination. The first attack occurred 4 months the second attack 2 months and the third attack 4 days before his admission to the hospital.

On cystoscopic examination blood was seen pass from the left ureteral orifice. Pyelography showed moderate hydronephrosis of a kidney lying in the hollow of the sacrum and a normal right kidney in the usual position. Bimanual examination revealed a tender swelling in the pelvis.

The urine had a specific gravity of 1.010 and showed one eighth volume of albumin. Blood cultures revealed streptococci but no tubercle bacilli. The renal efficiency test showed the blood urea to be 0.06.

The kidney was lying in the hollow of the sacrum. It had 3 ureters uniting to form a small sac which opened into the bladder by a single orifice. The sac contained a large calculus which obstructed the upper 2 ureters entering it.

HARRY A FOWLER M.D.

Hellstrom J. Contribution to the Knowledge of the Etiology of Hydronephrosis. *Acta chirurg Scand* 1927 111 167.

The author reports 2 cases of hydronephrosis in which the pelvic dilatation was probably due to the oblique course of the upper end of the ureter through the pelvic wall probably congenital. He discusses also a case in which spastic conditions at the uteropelvic juncture were apparently responsible.

Martin Laval and Pasteur. Small Painful Hydronephrosis. Enervation of the Kidney and Nephropexy. Late Results. (*Lettre hydronephrose douloureuse: énération du rein et néphropexie résultats éloignés*). *J d urol méd et chir* 1917 xviii 77.

In the case reported the kidney was slightly enlarged and painful. It was not movable but was located a little lower than normal. Enervation by Papin's method and fixation after partial decapsulation were performed and the pain ceased.

Two years and nine months later the patient was still free from renal symptoms. The function of the kidney was found to be approximately the same as before the operation.

Marion and Oraisen, who discussed the case are of the opinion that the fixation was mainly responsible for the cessation of the pain.

FLORENCE CARPENTER

Darget M. R. Recurrent Pyelonephritis in a Patient Operated upon for Renal Ptosis—Bifid Ureter. (*Pyélonéphrite à répétition chez une malade opérée pour ptose rale urétrale bifide*). *J d urol méd et chir* 1927 xviii 74.

In the case of a 40 year old woman who had undergone fixation of the right kidney five years previously, pyelocopy showed normal functioning of both kidneys but revealed also a bifid ureter on the right side. The two branches of the ureter joined a few centimeters above their entrance into the bladder. Apparently although this was not directly observable they were fused at their origin or both came from the same pelvis.

This case shows that it is possible for a ptotic kidney already in a state of advance distention to regain its normal function as the result of fixation.

FLORENCE CARPENTER

Takahashi A. The Health of a Patient 20 Years After the Removal of a Tuberculous Kidney. (*Rapport sur l'état de santé d'une malade à qui fut pratiquée 20 ans auparavant l'ablation d'un rein tuberculeux*). *J d urol méd et chir* 1917 xviii 347.

A woman now 48 years of age had her right kidney removed for tuberculosis in 1904 when she was 26 years old. In 1919 15 years after the operation she had kidney symptoms but they were found to be due to pregnancy and at term she gave birth to a healthy child. She bore 4 children before the operation and 6 afterward and is now in normal health.

AUDREA G. MORGAN M.D.

Hunt V. C. Papillary Epithelioma of the Renal Pelvis. *J Urol* 1927 xviii 5.

Papillary epithelioma of the renal pelvis is the least malignant of all malignant lesions of the kidney. It is relatively uncommon in the parenchyma of the kidney being the usual site of tumors. In a series of 318 malignant tumors removed by nephrectomy at the Mayo Clinic there were 3 primary epitheliomata of the renal pelvis. Eight were sessile and 15 were papillary.

The sessile and papillary types differ in their microscopic characteristics, degree of malignancy and manner of growth and extension. On the basis of clinical results and the grade of malignancy according to Broder's classification the sessile epithelioma is highly malignant as compared with the papillary epithelioma. The sessile epithelioma progresses and extends by invasion into the perirenal tissues, the renal vein etc. and metastasizes remotely while the papillary type progresses by extension along the mucous membrane of the calyces, ureter and bladder.

Hematuria is the most common sign. Painable enlargement of the kidney is usually dependent upon the presence of hydronephrosis. The discovery on cystoscopic examination of a papillary tumor of the bladder at or near the ureteral orifice should immediately give the clue to the diagnosis. The pyelogram usually establishes the diagnosis of renal tumor and sometimes that of papillary epithelioma.

Unless the bladder is involved the surgical procedures in the past have usually been limited to nephrectomy often with partial and occasionally with complete ureterectomy. However because of the high incidence of metastasis to the portion of the bladder immediately surrounding or adjacent to the ureteral orifice it appears that segmental resection of the portion of the bladder including the intramural portion of the ureter and the adjacent area must be done simultaneously with nephro-ureterectomy to insure the best prognosis. The technique of this 2 stage operation is described.

It is difficult to make a diagnosis between benign and malignant tumor of the bladder particularly

in cases of the pedicled villous forms which are frequently benign. In the case of a man 60 years of age the first cystoscopic examination revealed a tumor which appeared to be a typical pedicled papilloma but the second cystoscopic examination made a few days later preliminary to electrocoagulation showed a slight bullous oedema of the mucous membrane around the base of the pedicle such as is often seen in cancer of the bladder. The author therefore decided to remove the tumor. After opening the bladder he was unable to see or feel any change in the mucous membrane and was inclined to doubt his cystoscopic diagnosis but microscopic examination showed cancerous infiltration both in the pedicle of the tumor and in the bladder mucous membrane.

Takahashi therefore advises careful inspection on cystoscopic examination of bladder tumors to determine whether there is any bullous oedema around the base of the pedicle. **AUDREY G. MORGAN, M.D.**

Morson A. C. The Treatment of Vesical Carcinoma by Radium Irradiation. *Brit J R & O* 927 11 309

Morson discusses only inoperable cases of carcinoma of the bladder. When partial cystectomy is done by an expert it gives excellent results but when the lesion is too extensive for partial cystectomy a decision must be made as to whether a complete cystectomy shall be performed or irradiation employed. Radium irradiation does not cure bladder carcinoma but is followed by shrinkage of the tumor and temporary improvement in the general health. It will also control hemorrhage.

Four different methods of applying radium to bladder tumors are: (1) surface application (2) internal application (3) combined surface and internal application and (4) burying of the radium in the growth.

Surface applications are open to the objection that they cause the most intense irradiation upon the skin and the least intense irradiation on the tumor, considerable normal tissue intervening.

Internal application may be accomplished through a suprapubic cystotomy or through the urethra. At least a 4 hour exposure is required to destroy malignant cells. Through the urethra radium may be placed in the bladder by means of an operating cystoscope. Considerable normal tissue is heavily irradiated by either of the internal methods.

By combined application is meant the insertion of radium into the rectum and its application to the skin over the suprapubic region. This method is far from satisfactory.

The burying of radium in the tumor in the form of tiny glass tubes or radium seeds offers many possibilities but has several objections. The author deplores the haphazard method of applying radium tubes to a tumor in the bladder and the administration of sublethal doses. He believes that the 60 mgm of radium available is inadequate for the treatment of a growth invading one half of the

bladder. He buries 10 mgm tubes 1 in or less apart about the periphery of the lesion and leaves them in place for 24 hours. A marked reaction follows but complete disappearance of the tumor has not been realized. In general the improvement is only temporary but in the author's opinion the treatment is well worth while.

A. JAMES LARKIN, M.D.

Chauvin E. Double Urethra. Particularly the Posterior Varieties (A propos des uretres doubles en particulier de leur variety posterieure). *J d urol med* 141 19 111 89

Le Fort made an excellent classification of anomalies of the urethra in 1896 but he studied chiefly duplications of the anterior urethra and forms unknown to him have been found with the progress of surgery. Chauvin therefore suggests a revision of the classification and divides such conditions into 4 groups: (1) complete double urethra (2) juxta urethral cul de sac (3) bifurcations of the urethra and (4) diverticula of the urethra with a distinct canal.

He has been able to find only 6 cases of complete double urethra in the literature. Sometime it is difficult to distinguish the normal from the accessory canal but the former usually has a normal sphincter while the latter is a simple fistula from which urine drains constantly. Sometimes the accessory canals are too small to be catheterized but histological examination always shows them to be lined with stratified epithelium like the normal urethra.

The culs de sac are blind at one end and open on the skin or into the bladder at the other. Cul de sac opening into the bladder are very rare; the author has found only 2 cases in the literature. Those opening on the skin are much more common; they may run beside the normal urethra or above or below it. The dorsal ones are the most common. Le Fort collected 13 cases; Lebrun added 8 and the author has found 1 others in the literature and has seen 1 in his own practice. He describes the finding in his case in detail with a roentgenogram.

Posterior bifurcations of the urethra are difficult to demonstrate and so far as Chauvin is aware have never been diagnosed clinically. Le Fort did not know anything about them and only 1 case has been reported in the literature. In a case seen by the author the anomaly was discovered in a prostate that had been removed surgically; there was a urethra running through each of the lateral lobes. Anterior bifurcations are more common and may be lateral superior or inferior.

If a diverticulum of the urethra is to be classified as a double urethra it must not be simply a sacular dilatation but must present a distinct canal. It may be blind at one end and open into the urethra at the other or it may open into the urethra in the middle and be blind at both ends. The author reports a case in which histological examination of both culs de sac showed epithelium like that of the normal urethra. **AUDREY G. MORGAN, M.D.**

Nicholson B B Urethral Diverticula J U I
97 4

Urethral diverticula are a c They sometimes cause marked listu bane s and in several reported cases were responsible for death The author reports two cases and supplements his article with a very complete bibliography of the subject He states that many reported cases of congenital diverticula of the urethra lack proof of their congenital origin

Diverticula may occur at any point along the urethra Embryological evidence supports the theory that congenital diverticula are of entodermal origin As a rule they are called to the physician's attention before the patient reaches adult life

The diagnosis usually is difficult Frequently the most evident sign is the appearance of a tumor during urination and subsequent collapse of the tumor spontaneously or under manual pressure If the tumor is not palpable the history of urine may be expected from the urethra as well as from the urethra In cases in which the ureter enters a hard mass may be palpated and occasionally cystitis may be elicited Intravesical opaque solution will usually outline the diverticulum and indicate its shape and capacity

The treatment must aim at the sterilization and if possible the surgical eradication of the cavity The smaller pocket may be cleared of infection by massage irrigation and catheterization and urethral dilatation Especially in the case of stagnation of urine the larger diverticula must be completely dissected and cauterized

J s n s E r M D

GENITAL ORGANS

C G A G Prostatectomy in the Treatment of Urinary Retention in the Case of a Uterine Hemorrhage J U I
97 59

The author reports the case of a man 45 years of age who had had gonorrheal urethritis for about three months and urinary retention for the day Careful catheterization was done for a week with no relief

A perineal prostatectomy was finally performed The two lobes were incised and drained and a retention catheter was inserted Four days after the operation the patient voided spontaneously the temperature dropped and there was complete relief of the symptoms

Three other similar cases have been treated in this manner by the author

The treatment of choice is recommended for all of these cases without exception In the author's opinion it will often prevent the development of chronic urethritis and chronic prostatitis

MICHAEL L. M. M. D

Wildbolz H The Indication and Execution of Prostatectomy Proc R y S M d L o d
197 88

The general indications for operation for benign hypertrophy of the prostate which are recognized by all surgeons are

- 1 Permanent retention of a considerable quantity (50 to 200 ccm) of urine in the bladder
- 2 Frequent attacks of complete retention
- 3 Long standing infection of the bladder
- 4 Severe repeated hemorrhage from the hypertrophied prostate

Many surgeons are extending the indications for prostatectomy operation when the frequency is only a slight degree of retention In the author's opinion prostatectomy is not advisable as a prophylactic procedure It is indicated only when the patient is in danger from the disease

In the early days the mortality following operation was high because of uremia from impairment of renal function It is later generally recognized that renal function should be tested before operation However there is still a considerable difference of opinion as to which tests of renal function are best and as to when this function is sufficient to permit prostatectomy without undue risk

In a series of 135 operatively treated cases Wildbolz tested the renal function before the operation by (1) testing the power of the kidneys to dilute and concentrate the urine (the water test) (2) the phenolsulphonaphthalein test and (3) estimation of the blood urea

These tests were repeated several times in each case to determine the importance of any resulting change from the preliminary treatment One patient died of uremia after the operation In the case of another who died of pneumonia and acute bilateral pyelonephritis there were no signs of uremia for 3 weeks but a few days before death the blood urea rose to 2 mm In none of the other cases was the operation followed by uremia

The water test is considered by many urologists to be the most important test of renal function Suter of Basle refused to operate unless the urine is concentrated to a specific gravity of 1.07 Lehmann considers a specific gravity of 1.018 and R. Brühl a specific gravity of 1.05 to be the minimum According to the author these figures are unnecessarily high as in 6 of his cases recovery resulted when the concentration was much lower In 18 the specific gravity was between 1.011 and 1.06 in 7 it was 1.0 and in 1 it was 1.009

Some surgeons attribute more importance to the difference between the highest and lowest figures for the specific gravity as determined by the test of concentration of from 15 to 20 degrees Fahrenheit side effect of safety Of the patients whose cases are reviewed here 15 percent of a much lower concentration Several showed a difference of only 4 or 5 degrees and a difference of only 3 degrees

A poor response to the water test is not an absolute contraindication to operation it is a suggestion only of

impairment of renal function. The author has never seen a poor result from the phenolsulphonphthalein test when the water test was good. In only cases in which the water test was satisfactory was the blood urea high.

A good response to the phenolsulphonphthalein test indicates good renal function but a poor response is not a definite contra indication to operation. Some urologists insist upon a minimal elimination of from 42 to 55 per cent during the first hour but Wildbolz believes this is too high. In the majority of his cases more than 30 per cent was eliminated in the first hour but in 13 the elimination was between 20 and 30 per cent and in 10 it was less than 10 per cent. Most of these cases showed a remarkably good elimination during the second hour. Wildbolz concludes that an elimination of less than 10 per cent during the first hour is a contra indication to prostatectomy but when there is an elimination of from 10 to 20 per cent operation is permissible provided the elimination is as high or higher during the second hour.

The estimation of the blood urea should be done to supplement the other tests. When the water and phenolsulphonphthalein tests are satisfactory operation is permissible but when they are unsatisfactory they leave us uncertain. The estimation of the blood urea shows when operation is definitely contra indicated but leaves us uncertain as to when it is permissible. A high blood urea determination is a contra indication to prostatectomy but a normal amount of urea in the blood is no proof of satisfactory kidney function. Several observers have seen patients with a normal blood urea value develop symptoms of uremia after prostatectomy. Wildbolz has seen patients with a blood urea value of from 30 to 40 mgm eliminating phenolsulphonphthalein very poorly and with such a small power of urine concentration that prostatectomy appeared too dangerous. He believes that the estimation of the blood urea will indicate only a serious deficiency of renal function and does so later than the water and phenolsulphonphthalein tests. On the other hand an abnormally high blood urea value is a certain indication that renal function is for the time too poor to permit operation. Uremia will surely follow operation when the blood urea is 100 mgm and will probably follow it when the blood urea is 80 mgm. When the blood urea is between 50 and 80 mgm operation is permissible only when the other tests are favorable. These observations indicate the necessity of employing more than one test of renal function.

Renal function may be rapidly improved by regular drainage of the bladder. As shown by Kormitzer, Hinman and Morrison deficiency of renal function is due not so much to atrophy of the renal parenchyma from back pressure as to disturbances in the circulation of the kidneys. Most patients respond promptly to preoperative treatment. In a few cases however no such response occurs and operation is not permissible.

When the response to renal function tests is not so poor as to contra indicate operation but improvement under drainage is not satisfactory operation may be performed if the general condition is good. If the condition of the heart and lungs is not satisfactory operation is not advisable. In deciding whether or not to operate it is important to ascertain whether a perineal operation may not be performed instead of a suprapubic operation.

Wildbolz believes that the perineal operation places less strain on the heart and lungs. He has found that the suprapubic operation is usually followed by an increase in the blood urea lasting several days while the perineal prostatectomy is followed by only a slight or no increase. In more than 50 per cent of cases in which a suprapubic operation was performed there was an increase in the blood urea on the fourth or fifth day. In the majority it amounted to from 60 to 100 mgm but in 1 case it was more than 100 mgm. In only 18 per cent of the cases treated by the perineal operation was there an increase and in these it was trifling. In 28 per cent of the cases of perineal operation there was a decrease on the fourth or fifth day after the operation. This difference is explained by the fact that in perineal operations there is much less disturbance of the general vascular circulation, less bleeding and less necrosis of the tissues. The wound does not hinder respiration or expectoration and as the wound is well drained there is only a slight amount of absorption to increase the blood urea.

In the author's technique for perineal prostatectomy approach to the prostate is gained by the usual incision and blunt dissection and the prostate is pressed downward into the wound by a metal catheter in the urethra. The fascia of Denonvilliers is then incised transversely just above the apex of the gland and pushed backward to expose the posterior surface of the capsule. The latter is incised by a midline vertical incision beginning 1 cm above the apex and through this incision both lobes of the prostate are enucleated as far as possible. The prostatic urethra is divided transversely just at the lower end of the adenomatous mass the upper end being left connected with the neck of the bladder. Young's retractor is then introduced and the upper end of the urethra is divided close to the neck of the bladder together with any adhesions between the adenomatous mass and its capsule.

Four sutures are placed through the neck of the bladder and the stump of the urethra at the apex of the gland. The ureters are tied over an indwelling silk catheter which is left in place for from 12 to 14 days. The sutures restore the normal anatomical conditions so far as possible. A drainage tube is placed in the prostatic capsule. No packing is used. The superficial wound is closed with a few sutures.

Healing usually occurs by primary intention. The drainage tube is removed after 3 or 4 days. After the removal of the catheter the patient voids normally.

In 103 cases treated by suprapubic prostatectomy the mortality was 15 per cent whereas in 305

treated by perineal prostatectomy it was 6.5 per cent.

Disadvantages of the perineal operation are wounding of the rectum and the risk of incontinence.

HARRY A. F. WILK, M.D.

Thompson: Prostatectomy—Some Remarks About the Indication, Technique, and Results

The author reviewed his experience in 93 cases of prostatectomy with a postoperative mortality of 5.4 per cent. The cause of death in 5 patients was the prostatectomy with a mortality of 4.0 per cent and 11 cases of cancer of the prostate with a mortality of 9 per cent.

To obtain good results from prostatectomy careful preoperative treatment is necessary. Of chief importance is permanent drainage of the bladder. A catheter is inserted by means of the external catheter. The effect of drainage will be carefully controlled by the catheter according to the Strauss method and determined in terms of the non-protein nitrogen of the blood. The latter decreases as a correct stimulation of the functional capacity of the kidneys. As a rule a good result from operation can be expected if the non-protein nitrogen of the blood does not exceed 40 mgm. On account of the relatively common variability of the renal function in patients with prostate conditions repeated determination will be made before the operation and when the prognosis is uncertain the patient should be kept on an excretory catheter and diet to the fullest possible extent.

The result is improved if, before the operation, perineal drainage is given. When the non-protein nitrogen content of the blood is persistently high and there is considerable infection a preliminary cystostomy should be done to obtain more effective drainage of the bladder and greater improvement in the renal function than result from the use of the retention catheter.

The occurrence of postoperative epididymitis can be greatly eliminated by changing the catheter every other day during the treatment before and after operation.

In cases of benign hyperplasia of the prostate prostatectomy usually gives a lasting result. In cancer of the prostate in which the diagnosis may be very difficult, on the one hand, complete amputation of the prostate as a definite result is followed by prostatectomy by the transurethral surgical route very unfavorable. Recurrence and metastases sometimes develop within 6 months after the operation but in some cases several years may elapse before such complications arise. The patient being quite free from symptoms in the interval. The occurrence of postoperative multiple metastases in the bone especially in the vertebral column by means of such metastases often grow very slowly however it appears to be fibrosarcoma influenced by repeated treatment with the roentgen rays.

Ibrahim A. B. The Relation of Funiculitis to Hydrocele in Egypt. L. 1927, 927, 928, 929.

Cellulitis of the spermatic cord has long been recognized as a fairly common affection in the East. It has been described in Egypt and Ceylon. Castellani studied the condition and gave it the name of epidemic funiculitis. At Kasr el Ainy hospital during the year 1922 to 1924 105 patients with the condition were admitted and about twice this number were treated as outpatients. These figures represent only a small percentage of the total incidence of the condition because they include only cases of the most severe type.

The disease is observed most often in April, May, and June but may occur at any time of the year. It is most common between the fifteenth and thirtieth years of age. It is usually unilateral but may affect both sides simultaneously. The attacks usually recur at variable intervals. In Castellani's opinion it is a filarial disease with a superadded streptococcal infection.

There are 3 major varieties—the gangrenous, the suppurative, and the non-suppurative.

The non-suppurative type which is much more common than the suppurative appears in a mild and a severe form. It has long been described as thrombosis of the spermatic cord.

The gangrenous type which is the rarest causes death usually in 2 or 3 days with marked symptoms of septicæmia. Death occurs in spite of early interference.

The cutaneous supplicative form offers a somewhat better prognosis if promptly treated but often causes death. Abscess formation especially in the knee joint is a common complication. A diplo-streptococcus is isolated in every case.

Hydrocele is an almost constant sequel of the milder cases and in the author's opinion almost all of the very numerous cases of hydrocele observed in Egypt are due to this condition.

There is a great similarity between funiculitis and the attacks of lymphangitis occurring in tropical elephantiasis. The underlying cause is probably a filarial and the exciting cause a streptococcus.

JOSEF S. EISENSTADT, M.D.

Stricker P. and Frank A. Multiple Fibromata of the Tunic Vaginal (Fibromatosis of the Tunic Vaginal). J. d. l. d. t. f. 97.

53

Stricker and Frank report a case of fibromata of the tunica vaginalis in a 4-year-old man. The first tumor was noticed by the patient two years previously. There was no other abnormality in the genital region.

At operation five small tumors round and very hard were found adherent to the deeper and inner layers. Almost all of the tunica vaginalis was removed with the tumors. The other growths the size of the head of a pin were excised in the same way. The serous membrane and destroyed with the thermocautery.

Histological examination showed the tumors to be fibromatous formations very much sclerosed

The authors have been unable to find a similar case in the literature

FLORENCE CARPENTER

Wesson M B Backache Due to Seminal Vesiculitis and Prostatitis *California & West Med* 1927 LVII 346

Wesson says that in a large percentage of cases of low backache there is an infection of the prostate and seminal vesicles and as soon as free drainage is established the backache ceases

He emphasizes the fact that although the primary infection in such cases is in the prostate it is the secondarily infected seminal vesicles which are responsible for the metastatic infection

Disease of the prostate or seminal vesicles causes backache through referred pains or by metastatic infection with resultant local fibrosis or arthritis in the lumbosacral spine. As this causes the patient to assume an attitude which increases the strain on the back muscles the static element is often directly responsible for the pain in the muscles and ligaments

In backache due to disease of the seminal vesicles the pain is made worse by pressure on the structures at fault but movements of the back are not limited until the development of arthritis. Particularly important in the lower back is the presence or absence of tenderness on pressure in the area of pain

In cases of long standing infections which are sealed in several treatments are necessary to break down the barriers and release the pus and bacteria

Four cases are reported

LOTIS GROSS M D

Walker K M The Treatment of Genital Tuberculosis in the Male *Laet* 1927 CCIII 367

Walker emphasizes that genital tuberculosis is to be regarded as a local manifestation of a general condition requiring the adoption of all general and local measures known to be of value in rousing resistance against infection by the tubercle bacillus

In its surgical treatment epididymectomy is the operation most generally of value. Vesiculectomy although based on a correct understanding of the pathology of the disease is rarely necessary as removal of the lesions in the testicles is usually followed by marked regression of those in the prostate and vesicles. This regression is materially assisted if epididymectomy is supplemented by climatic and dietetic treatment, heliotherapy, X-ray irradiation and the use of tuberculin. If no improvement in the central lesions occurs, vesiculectomy and the removal of grossly infected tissue in the prostate should be done as a secondary measure

In advanced cases of tuberculous vesiculitis and prostatitis and those with fistulous tracts the radical operation should be performed as a primary measure. It may be carried out also in a few cases of less advanced disease when the patient's mode of life and environment are so unfavorable that he is severely handicapped in the fight against tuberculosis

C TRAVERS STEPIA M D

MISCELLANEOUS

Barbellion I The Latent Gonococcus and Spermioculture (Gonococcus latent et spermoculture) *J d urol méd et chir* 1927 LVII 36

In Barbellion's opinion spermoculture is an indispensable complement to the older methods of diagnosing the question of cure of gonorrhoea. It is not however an absolute criterion and the difference in the results obtained by different investigators (Janet Debaines a positive result in none of his cultures and Maille a positive culture in 94 per cent) indicate the difficulties experienced in its application

In 1923 Barbellion obtained a positive result in from 50 to 60 per cent of his cultures whereas in his latest research with a different medium he obtained a positive result in only 4 per cent. He believes that the organisms seen in the previous investigation were not gonococci. He does not accept the theory that the gonococci found in the sperm of a high percentage of clinically cured cases are gonococci of a special attenuated saprophytic type

Examination of the fresh sperm between slide and cover glass gives information as to the presence, number and vitality of spermatozoa and the presence of leucocytes and bacteria. Further information is obtained from an examination of the sperm spread thinly fixed and stained with Gram's stain. The presence of pus in the seminal fluid is a sign of prime importance even in the absence of gonococci. It is very important to search for the gonococci in the fresh sperm as well as to make cultures

FLORENCE CARPENTER

Lambkin E C and Dimond L The Employment of Polar Body Developing Strains of the Gonococcus in the Treatment of Gonococcal Infection *Brit M J* 1927 I 30

The objectives in the treatment of gonorrhoea are the following

1 To raise the immunity of the mucosa through which the organism enters the body

2 To increase the resistance of the particular glands and organs susceptible to attack by the gonococcus

3 To raise the antibacterial properties of the blood and tissue fluids in order to reduce the risk of systemic spread of the infection

4 To bring the patient under certain precise biochemical and colloidochemical conditions which have been found to give optimum results as regards defense against the invading organism and to place the infecting organism under conditions in which it is least able to withstand the defense mechanism of the body

5 To provide a means of determining whether any local foci of the disease remain or whether the patient is completely freed from the infecting organism—in short to obtain a test of cure

These objectives have been sought by (1) drainage of the whole urethra by mild irrigating fluid

() maintenance of the urine reaction at a pH of 7.2 to 7.4 (3) intra urethral instillation of a product of gonococcus metabolism the exotoxin (4) the parenteral administration of the exotoxin and (5) the instillation into the urethra of another gonococcus product called endotoxin. The methods have not yet been perfected.

Solar bodies which have been obtained in 33 per cent of all gonococcal strains have been found to develop also in a certain percentage of strains of every organism investigated up to the present time provided the necessary elements for their formation are present in the culture medium and the physical conditions required for their development are maintained.

C. TRAVER STEPT, M.D.

Botsford M. E., Rigglett E. and Johnson C. M.
Anæsthesia in Urological Surgery. *C. I. f.*
6-11-17, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

The choice of anæsthetic in urological surgery is a matter of concern to the urologist, surgeon and anæsthetist and has been the subject of much discussion and investigation in the past few years. The inhibitory effect of ether and chloroform on kidney function is well established. Cunningham attributes it to reduction of the blood pressure and impairment of aeration of the blood.

In selected urological cases local anæsthesia is ideal but for the large majority in which general anæsthesia is necessary nitrous oxide best meets the requirements of urological surgery. Unlike ether and chloroform nitrous oxide has no effect upon the blood pressure other than to cause a rise during secondary saturation when the oxygen pressure is

reduced and as it is not eliminated by the kidneys it has come to be regarded in most urological clinics as the anæsthetic of choice when a general anæsthetic is indicated.

Because of the supposed retardation of urinary secretion produced by morphine and atropine the latter are generally omitted in cystoscopic examinations and ureteral catheterizations under nitrous oxide anæsthesia but from experiments on dogs Haines and Milliken concluded that in the usual hypodermic doses they do not affect the kidney function unfavorably and even prevent the inhibition produced by ether. The investigation reported in this article was undertaken to determine whether nitrous oxide anæsthesia inhibits kidney function and if so whether morphine and atropine prevent this inhibition as they do when ether is used.

Cystoscopic examinations of adults are usually done under some form of local anæsthesia but in these procedures also the preliminary administration of morphine would be of great value for its preoperative psychic effect and for postoperative relief of pain.

In uterine and anal anæsthesia morphine frequently the factor which determines the possibility of obtaining muscular relaxation. The author therefore concludes that if as Haines and Milliken suggest it does not interfere with elimination in urological operations such as perineal and suprapubic prostatectomies, nephrectomy and operations on the bladder as well as cystoscopic examinations and ureteral catheterization may be done under nitrous oxide anæsthesia without the addition of ether.

I. L. G. S. M. D.

SURGERY OF THE BONES, JOINTS, MUSCLES, TENDONS

CONDITIONS OF THE BONES JOINTS MUSCLES TENDONS ETC

Sycomore L K and Holmes G W Endothelial
Myeloma (Ewing's Tumor) *J R Ntg* 1
19 7 VIII 2 3

The course clinical incidence prognosis morphology and response to irradiation of Ewing's tumor are sufficiently characteristic to make endothelial myeloma a clinical and pathological entity. The rarity of its recorded occurrence is probably due to failure of diagnosis. According to available statistics it constitutes approximately 10 per cent of bone tumors. It metastasizes readily to other bones thus probably accounting for the fact that it is sometimes considered a condition of multiple primary tumors.

The clinical picture is characterized by localized intermittent pain and swelling and local heat without redness. Sometimes there is slight tenderness and occasionally pulsation is noted. There may be slight fever and a slight leucocytosis. The roentgenographic picture is that of a purely destructive non osteogenic process in the bone. The tumor usually involves over one half of the shaft extending from the center toward the ends. There may be periosteal reaction leading to new bone formation. This usually occurs parallel with the shaft but occasionally in radiating spicules. The tumor may invade the periosteum and surrounding soft parts.

It must be differentiated from osteogenic sarcoma metastatic malignancy multiple myeloma and osteomyelitis. The differential points of these lesions are discussed at some length. In doubtful cases a course may be had to biopsy or to the therapeutic test of irradiation. As biopsy increases the danger of metastasis and the response to irradiation is rapid and specific the latter is better.

Irradiation is the treatment of choice. Its action is so marked that failure of a tumor to react favorably is sufficient evidence that the growth does not belong in the category of Ewing's tumor. The treatment must be continued over a long period as the growth tends to recur. No definite statement can be made as yet with regard to the curative value of radiation since only a few cases have been treated by this method alone and these were treated too recently to justify conclusions as to the permanence of the cure.

The use of surgery and Coley's serum is discussed briefly.

The prognosis of the condition is unfavorable although considerably better than that of osteogenic sarcoma or multiple myelitis.

A case seen by the author is reported in detail.

ABRAHAM HARTUNG M D

Rowlands M J Rheumatoid Arthritis Is It a
Deficiency Disease? *Proc R Soc Med Lond*
1927 XX 17 1

In investigations with regard to the effect of diet on rheumatoid arthritis Rowlands found that when pigs with stiffness and swelling of the joints were fed on a full vitaminic diet they became entirely normal.

Early clinical observations had led him to the conclusion that rheumatoid arthritis is of trophic origin. This was suggested by the typical areas of hyperaesthesia and the marked wasting of specific muscle such as the vastus internus the nerve of which supplies the knee joint and the deltoid in which the circumflex nerve is involved. Over a long period of observation he noted that in a very high percentage of the cases cultures of the urine yielded bacillus coli. Of the last 100 cases studied bacillus coli were found in the urine in 80. Cultures of the fluid obtained by puncture of the joints were sterile.

The author studied also the effects of a deficient diet on rats. When a diet deficient in Vitamin B was given all of the animals appeared sick within 3 weeks and in the fourth week a number of them died. In controlled necropsies the most marked and constant findings indicated absence of the peristaltic wave general malnutrition and distention of the caecum. Colon bacilli could not be cultured from rats fed on the deficient diet for only 4 weeks but were found in the urine of those fed this diet for 9 weeks.

None of these animals died from acute septicemia or showed the least signs of being ill other than symptoms attributable to the deficiency in the diet.

These and other findings suggest that a deficiency of Vitamin B in the diet of animals lowers the vitality as indicated by the subnormal temperature and decreases the resistance to infection. The rats died of acute toxemia. In the author's opinion the absence of peristalsis was due to paresis of the nerve supply followed by atrophy of the muscle with consequent distention and the absorption of toxin. The track of infection is by way of the lymphatics.

In discussing the similarity of the effect of a deficiency of Vitamin B in the diet to a nerve disease the author calls attention to the fact that in animals fed on such a diet a constant symptom is paralysis. In rheumatoid arthritis a joint commonly involved is the knee. Before the pain becomes localized in the knee the patient usually complains of a tingling or numbness around the joint. Wasting of the vastus internus sets in and there are areas of marked hyperaesthesia above the knee joint and on the outer part of the leg. The vastus internus supplies the knee joint or at least its synovial membrane. There is no wasting of the rectus.

In rheumatoid arthritis of the shoulder joint the patient often complains of pain over the deltoid before there are any marked bony changes and sensitive area in the skin are found in the region supplied by the cutaneous branch of the circumflex nerve. The circumflex gives off a large branch to the joint as a trophic nerve.

In rheumatoid arthritis of the hand there is marked wasting of the interosseous muscles and of the thenar eminence which are supplied by the deep portion of the ulnar nerve. There is never any wasting of the hypothenar eminence. If the wasting were due to disuse all of the muscles would probably be equally involved.

The author draws the following conclusions:

1. The absence of any organism in the blood of the joints and the tissues indicates strongly that the disease is of toxic origin. The high percentage of cases (90 per cent) in which there is a bacillus indicates strongly that the condition is due to bacterial products.

2. Rheumatoid arthritis may be accompanied by distention of the stomach and constipation.

3. The similarity in the anatomical changes in almost all cases is remarkable.

4. Injury is a predisposing cause determining which joint will be involved.

5. The disease is one of calcification and increasing. The increase in its incidence is consistent with the changes in our diet.

In the author's experience a diet with a concentrated content of Vitamin B has been effective in relieving rheumatic pains and stiffening of the joints.

Massage and electrical, thermal and drug treatments have proved of little value. Foci of infection should be removed as far as possible.

LEWIS C. HILL, M.D.

Cahey, E. J. The Anatomy, Physiology and Anomalies of the Spine. Rad. 1919, 97, 9.

The spine has two primary curves—the thoracic and the sacral—for the accommodation of the viscera. There are also two secondary curves—the cervical and the lumbar—which compensate for the upright posture. These curves render the spine sixteen times stronger than it would be if it were straight. They give it elasticity and maintain the weight of the viscera within the line of the center of gravity. The curve is so gradual that it prevents the possibility of compression of the cord and adds greatly to the beauty of the body outline.

The vertebrae are interlocked and overlap each other by the spinous and articular processes so that the cord is well protected and there is little danger of its location. The weight-bearing part of the vertebrae is especially built to sustain its load. The strong lamellae run vertically and are bound together by weaker horizontal lamellae. Both sets of fibers are curved with their convexity toward the center of the bone. Elasticity is afforded by the cancellous composition. The cancellous tissue is covered by a thin layer of compact bone. The cord

is attached to the vertebral bodies, the least movable parts of the spine.

Röntgenograms of the spine should be of decided clinical importance. Normal standards must be set up for the different anatomical ages. When this is done the roentgenologist will be able to report an increase or decrease of surface outline or density of bone in the various vertebrae.

The roentgen examination is a valuable resource for recognition of the various abnormalities in spinal development that result from delayed growth or a perverted anatomical condition.

The spine may show absence of one or more vertebrae, an additional vertebra, retarded or accelerated growth of parts, or complete inhibition of parts of vertebrae. The most common anomalies of this type are spina bifida and fusion of vertebrae to contiguous bones. CHARLES H. HEALOC, M.D.

SURGERY OF THE BONES, JOINTS, MUSCLES, TENDONS, ETC.

Pratt, M. The Importance of the Junction of the Extensor Tendon of the Fingers (Syllabus of the Lecture). The Journal of the American Medical Association, 1919, 34, 197.

A carpenter 38 years of age sustained a cut across the back of his hand. The extensor tendon of the middle finger was cut at the junction of the middle and lower third of the middle metacarpal and was not sutured. The author was consulted 3 months later. When the patient held his hand palm down and with the fingers extended the middle finger was flexed a little below the others. When he made a forced contraction of the hand and then opened it the middle finger extended almost completely although a little more slowly than the others. The physician of his insurance company said he was malingering because all of the fingers could be extended after forced flexion.

Studies of the anatomy of the hand led Pratt to conclude that the patient was not malingering. In an examination of what the anatomist calls the "junction tendon" that is, the transverse fibers connecting the different branches of the extensor communis digitorum, he found that these fibers particularly those between the ring and middle fingers may function for one of the tendons that they connect when the latter is injured. Therefore section of one of those tendons in the middle or upper third of the metacarpal need not cause limitation of extension of all of the fingers together but only of extension of the injured finger alone. The latter may remain permanently in a position of slight flexion though complete extension is possible by hypercontraction of the extensor muscle. The conditions are symptomatic of complete section of the tendon with various function of the junction tendon. When the lesion is distal to the insertion of the tendon anastomosis or extension of the finger is impossible. AUBURN G. MORSE, M.D.

Ryerson E W Laminectomy *J Am M Ass*
1927 lxxxv 637

In Pott's disease laminectomy is indicated after conservative treatment by complete recumbency in bed on a Bradford frame has been given for about 6 months

In fracture dislocation of the spine with marked cord symptoms in which every hour of delay of treatment means increased harm to the cord an early decompression may give a chance for cure which otherwise would be lost In such cases laminectomy is a reasonably safe procedure and should be performed as a routine measure

Not only recent but also old cases of incomplete lesions of the cord due to injury may be greatly benefited by laminectomy

For cases of complete transverse destruction of the cord the author proposes to transplant several intercostal nerves downward into nerves below the lesion No attempt has been made to perform this operation as yet but Ryerson solicits opinions regarding the plan
A J GOTTALIEF MD

Nové Jossierand G and Pouzet F Late Results of Atypical Tarsectomies in Diffuse Tuberculosis of the Posterior Tarsus In Children (Résultats lointains de tarsectomies atypiques dans l'arthroarthrose diffuse du tarso postérieur chez l'enfant) *Lyon chir* 1927 xvi 19

In extensive tuberculosis of the posterior tarsus surgical treatment is necessary The authors have treated 40 cases The typical posterior tarsectomy was done in only 4 In the others they removed the astragalus and then curetted the calcaneum and the other bone of the tarsus so thoroughly that often they left only a shell of cortex and this only in areas that seemed normal In most of the cases a cure resulted

In 3 cases it was found necessary to remove the calcaneum secondarily and in 1 to perform a second curettage on that bone In addition to removal of the astragalus and curettage of the calcaneum which they did in all 45 cases in which the atypical operation was done they curetted the epiphysis of the tibia in 7 curetted or removed the scaphoid in 11 and 1 curetted or removed the cuboid in 9

On the whole the atypical posterior tarsectomy gave very good functional results Since as much as possible of the bones of the tarsus should be preserved curettage has the advantage over subperiosteal tarsectomy as it permits a considerable degree of regeneration and better preserves the surfaces of the joints particularly those of the calcaneocuboid joint Retrospectively the tibia with reference to the calcaneum must be prevented and special care must be taken to preserve the scaphoid because of its importance as a support of the tibia If the scaphoid is diseased curettage is preferable to its removal If removal of the scaphoid is unavoidable it may be best to remove the cuboid also even when the latter is normal so that the tibia will rest on the anterior part of the foot

The foot must be put up in a position to assure this support This is best done by pulling it downward and backward
AUDREY G MORRIS MD

Freiberg A H Physical Therapy and Its Relation to Orthopedic Surgery *J Am M Ass* 1927 lxxxv 782

Freiberg calls attention to the present haphazard and inefficient use of physical therapy and suggests how it may be corrected

The advent of heat baths electrotherapeutic apparatus and various forms of light instruments has tended to divert attention from the older forms of physical therapy and to a more alarming degree has lessened expertness in the use of massage gymnastics and general physiological training

There is a constant tendency to substitute expertness for a confusion of apparatus Freiberg insists that physical therapy and apparatus therapy are not synonymous Most of the apparatus now employed is good and of value under the proper conditions but it is rare to find that those using them or prescribing their use have more than a superficial knowledge of the relationship of the physical therapeutic agent to be employed and the physiological and pathological changes to be treated

Some of the most important methods included in the term physiotherapy cannot be supplanted by the use of any of the apparatus now known

Courses of instruction given in mercantile establishments to increase the sale of certain types of apparatus are not acceptable substitutes for training in medical schools or hospitals either for the physician who is to direct the treatment or for those who are to act under his direction

None of the so called drugless cults is to be regarded as identical with physical therapy or as a substitute for it

It is important that the principles of physical therapy in its modern sense be a part of the education of the student of medicine The medical student should have at least a minimal amount of training in its application

A more numerous personnel thoroughly trained in the practical application of physical therapy in its various branches should be at the service of the medical profession

In discussing a personnel to perform the practical part of this work Freiberg suggests that the nurse is best qualified to select physical therapy as a field for postgraduate specialization

GEORGE C HENSEL MD

FRACTURES AND DISLOCATIONS

Kleinenschmidt A New Method of Treating Pseudarthroses (Ein neuer Behandlungsweg der Ischiarthrose) *51 Tag d deutsch Ges f Chir Berl n* 1927

Besides general causes there are also local causes for the development of pseudarthroses To correct the latter in 3 cases the author exposed the pseudar-

thro is removed any possible local influences to cure freshened the wound and then performed an osteotomy upon the same bone at a distance. In this manner he obtained a wide contact surface for the fracture end. In 1 of the 3 cases the fracture produced by the osteotomy was not entirely healed though the pseudarthrosis was corrected. In the other cases both areas were healed completely.

In the discussion following this report EGGERS (Rostock) dealt with the operative treatment of subcapital fracture of the neck of the femur. He had reexamined 14 cases 6 of which had been operated upon in 1931 and 1 in 1934. In only 1 case was there a pseudarthrosis. In the others the operation was performed early. In 3 the neck of the femur was placed in the acetabulum and a fairly good result was obtained. One patient was able to walk for half an hour but was still unable to put any great weight on the leg. The other patients 70-year old women are able to attend to all of their household duties go up and down stairs and dress and undress themselves. In all of these cases the roentgenogram showed considerable atrophy of the femoral neck and in the formation of a new painless and functional joint between the remains of the neck and the upper edge of the acetabulum. In 4 cases the shaft was placed in the acetabulum. In 1 case it slipped out again and the result was therefore poor. To prevent this in the 3 other cases the trochanter was chiseled off and affixed to the strongly abducting femur below its original site and in 2 cases the acetabulum was broadened by the formation of a ridge according to the method of Koenig. In the 2 cases the shaft remained in the acetabulum and the hip was capable of bearing weight. Motility was good in 1 case and excellent in 1. Because of these results the method employed today consists only in the insertion of the shaft with possibly the addition of transplantation of the trochanter and the formation of a ridge.

Eggers also described briefly the Albee operation which gives good abduction a firm insertion on the shaft a negative Trendelenburg and 9 per cent of normal mobility.

According to the experience at the Rostock Clinic middle aged patients heal well in plaster cast. They are therefore treated conservatively. For older patients Eggers advocates early operation since by this means the period of treatment may be materially reduced.

DLUTSCHLAENDER (Hamburg) reported a successful operation which he performed years ago according to the method of Koenig on an old pseudarthrosis in a 70-year old girl. He extirpated the head of the femur left one portion in the acetabulum and resected and inserted the greater trochanter.

DEMEL (Vienna) discussed the good results that may be obtained with Whitman's plaster cast. This cast must be worn for 6 months. Eventually apparatus may be employed also. In the von Eiselberg Clinic every case is treated conservatively at

first. Operations are the exception (marked pseudarthrosis).

ANSCHUTZ (Kiel) stated that he also prefers to put off operating until conservative procedures have failed. The treatment of old persons is still unsettled. An operative method that is very well adapted to elderly persons is resection of the head of the femur and insertion of the neck. Still better is transplantation of the trochanter. After the latter operation some stiffness of the joint must be expected but the patient is able to walk fairly well.

VOELCKER (Halle) reported a successful operation on a pseudarthrosis of the neck of the femur in a young person. He did not remove the head entirely but used the remainder to form a new acetabulum in which he inserted a head constructed from the neck.

HENSCHKE (Bischof) stated that in 1 case he replaced the head of the femur with the head of the fibula which he implanted with the upper portion of the fibula. The result 8 years after the operation is good. The head and the acetabulum have accommodated themselves to each other. For several years he has permitted the patient to wear a Hepp apparatus.

RAUSCH (Koenigsberg) discussed the fate of ivory implanted in the human body. Ivory has been used at the Koenigsberg Clinic for many years. Rausch's studies were made in experiments on animals in which he implanted ivory in both soft tissue and bone. In the soft tissue a layer of granulation tissue was formed around it and in the bone a narrow necrotic zone from which callus was formed later. A dog with an ivory implant in one extremity was able to stand on the leg after 5 days and after 7 days scarcely limped at all. The ivory does not begin to disappear from the body until after months or years. Rausch showed that by autogenous means. Because of the hardness of the material it is impossible to follow the microscopic changes but experiments on animal and clinical experience show that good healing and eventual replacement of the transplant occur. Ivory is particularly suitable for use as a prosthesis.

KOENIG (Muerzburg) also emphasized the use of ivory. It has advantages very close to that particularly suitable for parts which will not be subjected to strain. Koenig has used it with success as a substitute for the lower end and as a substitute for the humerus in sarcoma. S. EITZ (Z)

Cotton F. J. Artificial Impaction in Hip Fractures. S. G. G. - Obituary 97137

Cotton classifies fractures of the hip as (1) extra capsular fractures not impacted (2) intracapsular fractures impacted either lightly or not at all and (3) epiphyseal separations. He does not discuss the third group.

In fractures of the first group bony union always results with usually a good prognosis if no artery is prevented. Cotton recommends for this class of case treatment by traction of from 6 to 15 lb with the leg in about 30 degrees of abduction for from 6 to 8

weeks. Walking may be allowed after from 10 to 12 weeks and return to work after from 18 to 20 weeks.

The intracapsular or high fractures of the neck of the femur are those which result in loose joints and for which artificial impaction is suggested. They are much more common in females than in males and usually occur in the aged as the result of lateral falls on the buttocks. Cotton has found that under the usual routine treatment only fractures impacted by the fall have good union. The others he treats as follows:

As soon as possible after the shock of the injury has subsided the patient is anesthetized and while one operator makes traction on the leg with the stockinged heel in the patient's crotch and another steadies the pelvis the leg is drawn down to the proper length abducted moderately and rotated inwardly. The surgeon then strikes the padded

trochanter several following blows with a heavy wooden mallet. Impaction results when the leg is felt to give and remains in position without rotating externally. A double plaster spica with a cross bar is then applied for from 10 to 12 weeks. This is followed by a Thomas caliper splint. When the X ray shows marked bone absorption diathermy is often beneficial. The length of time the ambulatory splint is worn is determined by bony union as checked with the X ray.

Poor or doubtful impactions are broken up and artificially re-impacted. If this is done and fixation is satisfactory bony union and a useful limb will usually be obtained. So far splinting followed by early motion has not been entirely successful but how its end results will compare with those of the described method of artificial impaction is as yet unknown.

CHESTER C. GUY, M.D.

The usual and most generally accepted procedure is excision after the course of the veins has been marked with dye. It is best to excise a considerable portion of the saphenous vein above the knee.

For cases with ulcers Smits advocates stretching or teasing of the internal saphenous external popliteal external saphenous or sciatic nerve. If the ulcer is large he either cures it or does an excision followed by skin grafting. Keller has described a method of obliterating the lumen of the varix with a continuous silk suture applied subcutaneously in order to prevent scar formation. Another method is the injection of the lumen with some substance that produces a thrombus which subsequently organizes. Douthwaite used this method for 2 years apparently with complete success. He injected a solution of quinine hydrochloride urethane and distilled water Sodium salicylate mercury perchloride and other substances have been employed for the same purpose. CHESTER L. CREAM M.D.

Melsen V. Injection Treatment of Varicose Veins and Their Sequelae on the Basis of 500 Treated Cases. *Acta Chir. g. Scand.* 1917 111:1

The chief purpose of this article was to point out the close topographical relation between varice and their complications: ulcer cruris and eczema chronica cruris.

Five hundred patients received 24 injections. Three hundred and seventy of the patients were women. In 55 cases there was a history of phlebitis a condition of great importance in the prognosis. In 40 cases the varices were complicated by chronic eczema of from 1 to 10 years standing and in 135 cases with an ulcer of from 6 months to 40 years standing. In 53 cases the ulcer had persisted for less than a year in 57 cases for from 1 to 10 years in 13 for from 10 to 20 years in 8 for from 20 to 30 years and in 4 for from 30 to 40 years.

The principal indication for the treatment of ulcer is pain. In all of the cases reviewed except the ulcer was healed at the time the patient left the hospital. One of the 2 ulcers that were not healed at the time of the patient's discharge was on the back of the calf and the other was a small ulcer on the internal aspect of the foot. A temporary recurrence of the ulcer developed in only a few isolated cases.

Frequently varices are concealed by their complications. They become visible only when the edema and swelling have subsided or are found only on careful palpation with the patient in the standing position resting on the leg that is being examined.

The venous pressure was increased in the varices but no relation between the venous pressure and the extension of the complication was manifested.

The etiological importance of working in the standing position was evident from the patients' occupations and the extremely frequent coexistence of pes valgus.

In the 500 cases there were 14 recurrences after operation. In 150 additional cases there were 12 recurrences. The relapses indicate that the blood from the deeper veins was forced out through the anastomoses. Injection treatment is far superior to operative treatment because it obliterates the veins in which the blood is stagnating.

Experiments carried out on animals showed that cocci circulating in the blood do not infect the thrombi.

Necroses are milder complications occurring during the treatment. These may give rise to phlegmons. They may be avoided by careful technique. Besides 3 cases of phlegmons there were 11 cases of infarction after the injections of from 20 to 5 ccm (maximal dose per injection not to exceed 10 ccm) in cases in which phlebitis developed and 1 case of hemorrhage. The incidence of complications was 1.6 per cent. The treatment caused no death or lasting disability.

During the last 4 months when a new technique and a new injection fluid were used there were no complications whatever.

In 35 cases of hemorrhoids the method gave excellent results but a small fissure developed in 2 cases and a small fistula in 1. The fistula was operated upon under novocain anesthesia.

Berntsen A. Varices of the Leg Especially from the Point of View of Etiology and Surgical Treatment. *Acta Chir. g. Scand.* 1927 121:6

The author discusses the etiology of varices and the results of their surgical treatment. The etiology has been studied by investigations on cadavers, clinical examinations of patients with varicose veins in different stages and microscopic examination of the walls of normal and varicose veins. The article is summarized as follows:

1. In agreement with the findings of earlier investigations the studies have confirmed (1) the importance of heredity (2) the greater frequency of varices in women and (3) the occurrence of varices as a rule before the age of 30 years.

In the majority of cases varices are found in both legs.

3. Varices are of 4 types: (1) the isolated saccular varix (2) the tortuous varix (3) the solitary dilated and hypertrophied but otherwise normal piece of vein interposed between the true varices and (4) fine cutaneous dilatactions.

4. The different phases of Trendelenburg's phenomenon are elucidated. The signs used to designate them are: 0 + - + -

5. In early varices Trendelenburg's phenomenon is 0 in insufficiency of the valves above in the vena saphena magna + in insufficiency of valves in the anastomotic branches to the deep veins - and in insufficiency in the valves in both places + -

6. The inconstant localization of the varices has been verified by clinical examinations and by dissections of cadavers. The cause of the condition is to be looked for in the wall of the vein itself.

7 Vary formation has been found to be due to atrophy of the muscular fibers in the media while the elastic tissue in the ea hler stages attempts to sta c off the dilatation b undergoing hypertrophy.

8 The best operative results are obtained from extensive excision of the valves probably because in this procedure an artificial inflow through incompetent valves and anastomotic branches to the deep venous system

9 It is difficult to operate before the condition becomes advanced. Good results may be obtained even in the case of comparatively old patients.

to. A disadvantage of percutaneous treatment is the risk of embolism. In 36 patients embolism occurred in 7.2 per cent. It proved fatal in 0.7 per cent of the cases.

Allen E V and B o n G E E oneou D agnos
of Rayn uds D se e n Obl te r t i v e u l a r
D s e (Th ombo Ang t Oblite r n) I
V r omoto D tu han S mulat r Rayna d s
D se e Il Th ombo Ang tis Obl t us of
tle Lowe Extrem t itl Pul ating Pedal
Arte e 1 J H S 0 7 cl 3 0 2

Vascular disease with thrombosis may be localized into two groups: the organic or obliterative and the motor functional Thrombotic obliterative and arteriole disease fall into the first group and Raynaud's disease and erythromalgia into the second Raynaud's disease is a non-vascular diagnosis in many cases of thrombotic obliterative In the usual case of thrombotic obliterative this is in combination with condition characterized by absence or decrease of arterial pulsation and is dependent on abnormal pallor on elevation and symptom of arterial occlusion such as numbness fatigue or the pain of claudication in angle of the hip the foot the ankle or the calf Only mild cases affected and recurrent superficial phlebitis occurs in 40 percent of the cases Raynaud's disease which is usually of the claudication type none of these symptoms or physical changes is functional

Two types of cause difficulty in diagnosis is. The first is that a in his history of the disease of the I usually occurs as the cut in the clinical manifestation of the disease. These are usually one or two stages after exposure to the such as the fall after exposure to the cell follow by a return to the normal color of the palloflubex rubra and return to the normal color. The picture is not in them to be due to changes to the cell and the entering of the in 30 per cent of all cases of the ombo anguina obliterans these Raudal phenomena are present to some degree but the question is a careful examination will be evidence of obstructive arterial disease and the diagnosis can be supported by pathological studies.

The second type of case of thrombosing thrombocytopenic purpura is often incorrectly diagnosed

Raynaud's disease is that in which the obliterative lesion and gangrenous changes are confined to the toes and there are normal pulsations in the pedal arteries. The onset in these cases is sudden with spontaneous pain and pallor in one or more toes. The pallor is gradually replaced by cyanosis which becomes progressively deeper. Pain is severe and amputation is necessary. In such cases the usual evidence of obstructive arterial disease is lacking. The arterial pulsations normally there is no excessive fatigue or pain of claudication in the arch or calf and there are no color changes on change of posture except in the affected toe. Further confirmation is caused by the occurrence of Raynaud like phenomena in these toes. Embolism must be excluded. In Raynaud's disease however color changes result in the main from the local psychical insults are pre-entail before gangrene occurs they are symmetrical and involve all of the toes. The reaction is complete—pallor cyanosis and rubor. The condition occurs almost exclusively in females and superficial phlebitis is a frequent accompaniment. In thromboangiitis obliterans of the type vasomotor color changes occur occasionally with arterial obstruction. As a rule only one or two toes are affected. The vasomotor reactions are incomplete that is pallor to normal or pallor to rubor to normal on exposure to cold. Only male are affected. Pallor is present on elevation and upper extremity phlebitis occasionally occurs. Pathological examination of the toes shows arterial obliteration.

The differential diagnosis of the two groups is central to rational treatment. Lumbar ganglionectomy is curative. Ray and Leake and of restricted value in selected cases of thromboangiitis obliterans.

Stul E nd St cker P Elgt t C ses of S p a
r nlect my n Ju nle Fander tils Obl t
er n nd Buerg D ea e (ll t b t
i t l t d l l t nte bl t t
j t t l m l d d Bu g) k d
f o l oo

Suprarenal gland my as first recommended for
arterial gangrene by Oppel in 1921 on the assumption
that the circulation due to hyperfunction of
the suprarenal gland. The author reviewed a case
in which the operation was performed. Five years
after the operation the thrombosis described by
Bueger (Case 6) as probably not true of
Bueger's cases as the arteries are not obliterated
in the majority of cases. In the present case the
thrombosis of the femoral artery seemed to be a
typical case of Bueger's disease. The collection
of thrombus in the femoral artery of the patients
admitted to the hospital with manifest
gangrene in the lower extremities is a recent
phenomenon. The obliteration of the chief arteries
of the lower extremities is a pathological gangrene. I do not see
any parallel in the cases of the thrombosis of the
arteries in the femoral artery there as in the
gangrene of the lower extremities in which the femoral

artery was completely obliterated the gangrene was less marked

Histological examination of the vessels showed organized thromboses rather than endarteritis. Two stages were noted. In the first the vessels were obliterated but the walls were not changed and in the second the muscular and elastic tissues were being dissociated by the penetration of vascular connective tissue which connected the thrombus and the adventitia. The authors did not find the purulent foci of polynuclear and giant cells in the peripheral part of the thrombi which Buerger considers specific for his disease.

Histological examination of the suprarenal glands did not show anything definite and blood examination did not always show a marked change as a result of the suprarenalectomy. In 3 cases however there was a considerable decrease in the blood platelets and in 2 a marked decrease in the coagulability. The bleeding time was not changed. Viscosity was determined in 2 cases. In 1 of them it was still high 10 months after the suprarenalectomy. In the other it was 1.8 instead of 4.5 which is normal but after infusion of Ringer's solution it decreased to 8. Several days after the operation it was still 8. The suprarenalectomy did affect cholesteremia and caused little or no decrease of glycemia.

Extrirpation of the left suprarenal capsule by the extraperitoneal route is not a dangerous operation. In the cases reviewed there was no mortality. The authors believe that the operation is indicated in Buerger's disease because in some cases it stops the progress of the condition and it almost always results in local and general improvement. In 3 cases this improvement lasted for several months and in 1 case for more than a year. In 1 case however amputation of the other leg was necessary 7 months after almost complete cure and in 2 others amputation was required soon after the suprarenalectomy. The latter however were in an advanced stage of the condition.

On the whole the results were good enough to justify further employment of the operation

ALFRED G. MORGAN M.D.

Neill T E Ligation of the Femoral Artery Below
the Origin of the Profunda Femoris In the
Treatment of Obliterative Endarteritis of the
Leg 1 St 8 19 7 lxxvii 4 5

In obliterative endarteritis the breaking down of the inner coat of the distal arterioles and infiltration with connective tissue gradually close the lumina of the vessels. Whether death of the part or healing takes place depends upon the collateral circulation. Ligation of the femoral artery below the origin of the profunda femoris is intended to stimulate the development of the collateral circulation.

The author reports the case of a man 59 years of age who had suffered pain of a spasmodic nature in the calves of the legs for three or four years. Two weeks previous to his admission to the hospital he

had an attack of severe pain in the left foot and small water blisters appeared about the great toe. The toes then became purple and necrosis of the distal phalanges ensued. There was considerable arterio-sclerosis. The blood pressure and the blood sugar were normal and the Wassermann reaction was negative. There was faint pulsation in the posterior tibial arteries but none in the dorsalis pedis.

Ligation of the femoral artery was performed just proximal to Hunter's canal. Steady improvement in the circulation resulted with subsidence of the gangrene. The patient became able to be up and about but death occurred suddenly from what seemed to be pulmonary embolism.

The extent of the healing is shown by photographs of the foot and the extent of the collateral circulation by roentgenograms of the injected vessels.

WILLIAM J PICKETT M D

BLOOD TRANSFUSION

Sidbury J B Transfusion in Childhood *J Im*
M 1 1027 1881 8 5

The author believes it absolutely necessary to cross match the blood before every transfusion with fresh serum and cells of blood obtained the day of the transfusion. He used the Linger method in practically all of his cases but believes that the method most familiar to the operator should be chosen. In infants the median basilic vein at the bend of the elbow or the saphenous vein over the internal malleolus are the veins of choice. If possible Sidney Linger avoids cutting down on the vein.

Table 1 shows the number of transfusions by years in the period from 1917 to April 1927 inclusive the number and percentage incidence of reactions the results obtained and the methods of transfusion employed.

TABLE I—SUMMARY OF CASES

[illegible]

SURGERY

Sidbury draws the following conclusion

- 1 Transfusion is a most valuable therapeutic remedy in infancy and childhood
- 2 Cross matching before each transfusion with fresh specimens of blood is the only safe method of blood matching
- 3 The blood should be cross matched regardless of the patient's age
- 4 For patients who have been given transfusions with incompatible blood exsanguination transfusion indicated
- 5 Too little emphasis is placed on haemolysis in blood matching
- 6 The indication for transfusion are increased as more is learned of the effects of blood in disease
- 7 Severe toxæmias such as are seen in severe burns erysipelas acute intestinal intoxication toxic pneumonia septicæmia infectious diarrhoea and carbon monoxide poisoning are greatly benefited by exsanguination transfusion
- 8 Respiratory infections of long standing are greatly benefited and their course is shortened by the administration of one or more transfusions
- 9 Malnourished patients with secondary anaemia begin to gain weight after a transfusion even if no change is made in their diet

EMIL C ROBINS M.D.

SURGICAL TECHNIQUE

ANÆSTHESIA

Schmidt H. Nitrous Oxide Anæsthesia in Germany (Ueber die Stickoxydulnarkose in Deutschland) *5r Tag d d tsch Ges f Chir* Berlin 19 7

In Germany there is still some hesitation in the acceptance of nitrous oxide for the induction of anæsthesia whereas in the United States it is being employed with increasing frequency. There are statistics on more than a million nitrous oxide anæsthesias without a single death. The advantages of nitrous oxide are that it has only a slight toxicity its use is rarely followed by postoperative complications it does not cause disturbances of the intermediate metabolic processes such as occur in ether anæsthesia it does not cause a fall in the blood pressure it induces narcosis quickly and the anæsthesia is followed by quick recovery of consciousness. The danger of the use of nitrous oxide lies in the cyanosis that develops in deep narcosis the prevention of which is a matter of technique in the induction of the anæsthesia. Nitrous oxide is not suitable for every case. It is unsuited particularly for prolonged anæsthesia. In positive pressure narcosis in conjunction with oxygen (Draeger apparatus) it was found satisfactory in 2000 cases. As the gas is now produced by the I G Dye Works Germany is no longer dependent upon America for it and it is cheaper.

In the discussion of this report Hesse (Leipzig) reviewed the good results obtained with nitrous oxide anæsthesia in the Leipzig Surgical Clinic. He emphasized the absence of a fall in the blood pressure the relatively slight postoperative vomiting and the fact not to be underrated that the patient finds the anæsthetic less disagreeable than others.

Bött (Koenigsberg) recommended the ether apparatus of Ombredanne which he has used for three years. It consists of a metal globe with an attached mouthpiece. From 50 to 100 gm of ether are poured in at one time. As a rule deep anæsthesia results after five minutes. The technique is very simple the apparatus being therefore particularly suitable for the general practitioner. A further advantage in its use is the absence of an excitation stage and of postnarcotic disturbances. In the three years in which Bött has employed it there were only two cases of pneumonia. Bött attributes the good effect to the rebreathing of the expired air charged with carbon dioxide. By this admixture of carbon dioxide the depth of respiration is increased and disturbances during anæsthesia and following operation are prevented.

Gauss (Wuerzburg) stated that not all American statistics are so good as those cited by Schmidt. He referred to statistics showing three deaths in 2500 cases of nitrous oxide anæsthesia. Even less favor-

able reports have been made. The disadvantages of nitrous oxide are that it is not suitable for prolonged narcosis and during deep anæsthesia it causes cyanosis. Therefore it is necessary either to avoid deep narcosis or run the risk of cyanosis. Gauss prefers narcylen anæsthesia. The danger of the explosion of narcylen has been overcome by new apparatus. The effort must now be made further to improve the technique of its administration.

Martin (Berlin) reviewed 16843 ether anæsthesias induced at the Berlin Surgical Clinic by the drop method with the Schimmelbusch mask after the injection of 1 cc of holoponotropine solution. In this series there were no deaths or late injuries attributable to the anæsthetic. Any new anæsthetic must therefore be as safe as ether and possess also additional advantage.

Zaaijer (Leiden) welcomed the introduction of nitrous oxide anæsthesia into Germany. If nitrous oxide is as he believes better than other anæsthetics it will soon establish itself. He regards it as incorrect to allow the patient to become cyanotic. When the proper technique is used cyanosis can be prevented even in deep anæsthesia. The use of nitrous oxide is perhaps somewhat more difficult in gynecological operations. In these rectal ether narcosis is better. Zaaijer prefers nitrous oxide for longer operations and for surgery of the lungs and chest (positive pressure). It is suitable also for children. If the anæsthesia is not deep enough a little ether may be used.

Finsterer (Vienna) stated that he learned to use and value nitrous oxide in America. For extensive operations American surgeons use ether in addition and completely block off the operative field by novocaine anæsthesia. When the proper precautions are taken nitrous oxide anæsthesia is not only entirely safe but without any injurious after effects on the liver, brain and kidneys such as are produced by ether. Local anæsthesia and nitrous oxide anæsthesia should be used to supplement each other. Pain is prevented chiefly by the local anæsthesia. Finsterer reviewed thirty-two gastric resections performed in America in which nitrous oxide was used during the separation of adhesions and during the induction of splanchnic anæsthesia and the resection itself was done under local anæsthesia without narcosis (anæsthesia of the abdominal wall from the lateral border of the rectum to cause relaxation). He emphasized the advantages of nitrous oxide anæsthesia over ether anæsthesia and sees in its combination with carefully induced local anæsthesia of the abdominal wall and mesentery the safest type of anæsthesia known to date.

In conclusion Schmidt cited the favorable statistics of Mayo and stated that he does not favor narcylen anæsthesia. STETTINER (Z)

PHYSICOCHEMICAL METHODS IN SURGERY

ROENTGENOLOGY

Bodier H. The Value of D-therapy in the Treatment of Roentgen Ulcers (Ulcers of the Roentgen). *Ann. Chir. Gyn.* 1917, 97, 89.

Bodier reports a case in which roentgen ulcerations on the lower part of the abdomen accompanied by severe local pain and impairment of the general condition developed a few months after roentgen irradiation for a uterine fibroid. He gave the patient liathermy treatment for 6 weeks—daily applications with 10 by 15 cm electrodes over each iliac fossa 1000 mads during a period of 10 minutes. To this he added emanations with a vacuum electrode and electric oil dressings. Complete healing resulted after 4 months.

RADIUM

Russ S. and Scott G. M. The Action of Radon Seeds on Tumor and Liver Cells of the Rat. *B. J. R. D.* 1917, 9, 19.

The experiments here reported were performed on normal rat liver and Jensen's rat sarcoma. The radon seeds were left in place for varying periods of time and sections examined immediately after their removal or forty-eight hours later.

Because of the difficulty of measurement and the rapid growth of the sarcoma a parallelism between the liver changes and the sarcoma changes was inferred or presumed rather than proved.

The description of the experiments is supplemented by photomicrographs and curves. The following conclusions are drawn:

When radon seeds are introduced into tumors and liver of rat limit a ease of destruction result. The extent of the damage depends much more on the amount of energy absorbed than on the intensity of the radiation. The cell surrounding the blood vessel appears to be protected to some extent from the damaging effect of the radiation.

A. J. M. S. L. RAIN, M.D.

MISCELLANEOUS

Mayer E. The Fundamentals and the Clinical Aspects of Light Treatment with Especial Relation to Tuberculosis. *J. T. M. I.* 1917, 17, 30.

Mayer discusses the physical characteristics of light, its photobiological effects, sunlight versus carbon arc and quartz mercury vapor light, the development of pigment in response to light therapy, dosage, technique of exposure, and the clinical results obtained with light therapy in tuberculosis.

He says that the indications for the therapeutic use of the various sources of light are still inexact and that the dosage of light cannot be fixed. The sources of light and the persons irradiated vary too greatly to allow any generalizations. The chief guides in light therapy are the signs and symptoms and skin reactions developing in response to the exposures.

The selection of a form of light therapy in tuberculosis may depend on the state of activity or the form of the disease. In febrile advanced cases it may be best to avoid the use of heat rays. In most forms of progressive acute tuberculosis, except those of the intestinal light therapy, probably not indicated. In any form of tuberculosis light is used merely as an adjuvant and should be combined with rest, good food, and hygienic outdoor life.

In the author's cases the most favorable response to solar exposure has been obtained in the so-called peripheral tuberculosis of children and in tuberculosis of the lymph nodes, pleura, bones, and joints, peritoneum, and intestines. The best results from the use of the carbon arc have been obtained in cutaneous bone and joint lymph node, peritoneal, and ocular tuberculosis. With the use of the quartz mercury vapor light the most favorable response has occurred in tuberculosis of the intestines, hilum glandular, so-called hidden tuberculosis, and cutaneous pharyngeal, laryngeal, ocular lymph node, and peritoneal tuberculosis.

In pulmonary tuberculosis artificial sources of light are not important therapeutic aid.

JOHN S. COLTE, M.D.

Dore E. Oddy H. M. Eldon A. Gausman S. F. H. and O. D. Discussion on the Use of Light in the Treatment of Ulcers. *Light Therapy*. 1917, 97, 5.

Dore called attention to the injurious effects of light acting as pathological conditions associated with constant or excessive exposure to the rays of the sun, solar dermatitis, hydroa, actinic keratosis, lentigo, made also of erythema ab igno, which is due to the heat and infrared rays at the opposite end of the spectrum. Mechanical dangers in light therapy are the breakage of quartz burners, but none from spluttering electric tubes. The risk of electric shock is peculiar when lamps are installed in bathrooms, deleterious effects on the eyes, burns from excessive exposure, debility, and depression produced by too frequent or lengthy applications, and the possibility of light-grip disease or tuberculosis or aggravated tuberculosis.

Oddy said that children react more easily and quickly to light than adults. The important signs of

overdosage are increased irritability, insomnia, and persistent loss of weight or failure to gain weight. Light therapy is indicated in surgical tuberculosis—especially tuberculous peritonitis and glandular tuberculosis—unless there is active disease of the lung. Cases of tuberculosis of the bones and joints progress better under light therapy than cases of peritoneal and glandular tuberculosis. Peritonitis with effusion is less favorably influenced than the dry forms.

LIDINOW stated that tests *in vitro* have shown that light increases the bactericidal properties of whole blood. The cause has not been determined.

GAUVIN regards sun treatment as the best form of radiation in surgical tuberculosis. He emphasized the importance of pigmentation of the skin as an indicator of the patient's response to the treatment.

SFQUEIRA said that in his clinic Campbell has noted no change in the metabolism produced solely by the general light bath. In the London Hospital clinic it has been found that light baths do not prevent the onset of acute specific fevers, but are of great benefit in post febrile debility.

KOHNSTERN stated that general light baths may light up unsuspected phthisis. Two cases in which this occurred were cited. JOHN S. COLLIER, M.D.

MISCELLANEOUS

CLINICAL ENTITIES—GENERAL PHYSIOLOGICAL CONDITIONS

Stone W S and C a e L F The Colloid Lead Treatment of Malignant Neoplasms

The author report on the treatment of 1 case of malignant tumor by intravenous injections of colloidal lead. In the tumor, mammary carcinomata, sarcoma, and the remainder were carcinoma of the uterine retroperitoneal tumor, gossarcomata, and metastatic (testicular?) tumor. The selection of the case was made entirely from the standpoint of the patient's safety. Tumor favorable for x-ray or radium and case in the initial weeks of the disease with marked anemia excluded.

The selection of the lead from that employed by Bell, being the most intracellular, more stable and effective in the first injection containing no gelatin. The author recommended these not exceeding 0.05 m of lead. They attempted to use amount which would produce a cerebral reaction. In the interval between injections was determined largely by recovery from the anemia following the previous injection.

Sign of lead toxicity followed all 56 injections but severe reactions in 4 instances. One alarming immediate reaction following a small dose was attributed to the gelatin which was used in that injection. The gelatin was thereafter omitted. During the first 3 hours, severe reactions occurred. Two were characterized by hemiparesis and jaundice. Two of these, the pleural effusion from metastatic mammary cancer, sharp brief reaction with vomiting, a rapid pulse, and prostration occurred. In practically all of the other cases the reactions were mild. None of the reactions was fatal. Except for occasional vomiting, cramps, and transient jaundice, recovery was always rapid and complete. No serious injury to the liver or kidneys was observed. Destruction of red cells constituted the chief difficulty. The average loss was 9700 cells.

Progressive changes were observed in 8 cases. Four cases of mammary carcinoma showed appreciable regressions, which in 2 instances might be designated as temporary cures.

Lead appears particularly favorable in mammary cancer with bone metastases. In malignant osteogenic sarcoma lead with radiation seems to offer a valuable treatment. The use of radiation in these cases may appear to invalidate the results but analysis of the case shows that most of the tumor was eradicated and showed more marked regression than occurs following radium alone.

The authors have no theory as to how the lead produces the change in the tumor but believe that failure in a case of chorion epithelioma does not point to select it for trophoblastic cell. Lead alone or with radiation appears to produce sufficient regression in some tumors partly to confirm Bell's result but lead does not seem to offer a cure for malignant neoplasms. BURTON CLARK, JR. M.D.

GENERAL BACTERIAL PROTOZOAN AND PARASITIC INFECTIONS

Brun R G The Relative Value of Certain Clinical Signs and Certain Laboratory Examinations in the Diagnosis of Echinococcus According to the Finding in 20 Cases Treated Surgically

From the 250 cases of echinococcus cyst upon which he has operated, Tunis the author concludes that the finding of laboratory examination are of practically no value. They do not become positive until the cyst is so large that it can readily be diagnosed clinically. The natives of Tunis do not come for treatment of these cysts until they disturb them on account of their size and Brun has been surprised to find how well they are borne.

The hydatid fremitus described by Dieulafoy as pathognomonic of hydatid cyst was noted only in 2 of Brun's 250 cases. Chauffard's sign of transabdominal or transabdominothoracic ballottement was negative in all. The diagnosis was based on the presence of a round elastic sometimes fluctuating tumor and the disproportion between so large a growth and the light functional and general signs. In 95 per cent of cases of echinococcus cyst of the lung a roentgen examination is sufficient for the diagnosis. Of the 250 cases reviewed hydatid cyst of the kidney occurred in 5 (2 per cent) which shows that renal involvement is not so rare as generally supposed. In 1 of the latter cases the diagnosis was made from hydatiduria preceded by renal colic and in 2 other copious hematuria was the first sign of the kidney tumor. AUGUST MARGARET M.D.

DUCTLESS GLANDS

Wentz H L The Action of the X Rays on the Endocrine Glands. Radiology 1917

Röntgen irradiation of endocrine glands has proved of value not only as therapeutic procedure in certain endocrine disorders but also in experimental investigations. As the various cell groups of

the glands differ in their radiosensitiveness it is possible by the aid of the roentgen rays to inhibit certain parts of the glands while others continue to function. Such a selective action was previously unattainable.

The actions which are theoretically possible when exactly graduated quantities of the rays are applied to an endocrine gland are (1) total destruction of the gland (2) temporary impairment of all of the glandular tissue with maintenance of the possibility of regeneration (3) complete destruction of highly sensitive cell groups with complete preservation of less sensitive cell groups and (4) a general increase in the activity of the cells i.e. stimulation. These possibilities require very exact dosage.

The ovaries present the most favorable conditions for work on experimental lines as they permit comparative measurements and the exact reproduction of the dose. By graduated quantities of the roentgen rays castration, permanent amenorrhoea or temporary sterilization may be obtained, results which are demonstrable by histological changes in the ovary. It can be shown also that with temporary sterilization the influence of the ovary on the endocrine system is preserved. This is proved by absence of the deficiency symptoms and metabolic alterations which occur with permanent amenorrhoea and total sterilization. Detailed accounts are given of the various histological changes produced by different dosages and the clinical results obtained are explained on the basis of these findings.

The author discusses also the interrelationship between the endocrine glands in various diseases as indicated by roentgen treatment. With regard to the interrelationship between the ovary and thyroid he deals with thyroid dysfunction of the ovary, ovarian hyperthyroidism and dysfunction of the thyroid on the basis of hypothyroidism.

In dysfunction of the ovary due to hyperfunction of the thyroid which is manifested by polymenorrhoea and dysmenorrhoea, roentgen ray treatment of the thyroid gland is indicated.

Persons with ovarian hyperthyroidism suffer primarily from an ovarian dysfunction which is often based on inflammatory changes and later develop hyperthyroidism. Roentgen ray treatment of the thyroid is not indicated in this condition but temporary sterilization is advisable.

In dysfunction of the thyroid on the basis of hypothyroidism the most important signs are polymenorrhoea, increased and prolonged menstrual bleeding and hypofunction of the thyroid. Roentgen ray treatment of the thyroid is contra indicated. In cases of amenorrhoea due to hypothyroidism it is well to prescribe thyroid preparations with ovarian preparations. Stimulative roentgen ray therapy is contra indicated.

The article contains detailed histories of cases showing a disturbance in the interrelation of the endocrine glands.
ADOLPH HARTMAN, M.D.

SURGICAL PATHOLOGY AND DIAGNOSIS

Watt, J. C. The Deposition of Calcium Salts in Areas of Calcification. *1 cl Surg* 9:7 x 89

Watt reports his findings with regard to the deposition of calcium salts in human artery walls, calcified areas of choroid plexuses, pineal glands and thyroid glands. He found that pathological deposition of calcium is not associated with any one type of cell but occurs in many different tissues that no living cells are included in the masses, that there is no definite cellular membrane surrounding the mass to which its origin could be ascribed and that the masses of calcium are not encapsulated or sheathed by fibrous tissue suggesting a tissue reaction to them.

The most logical explanation for precipitation is the theory advanced by Wells and others that the calcium salts contained in solution in the blood and tissues are soluble only because of a fixed content of carbon dioxide in the solutions and that they are precipitated when the amount of carbon dioxide is decreased.
PAUL C. COLONY, M.D.

BIBLIOGRAPHY of CURRENT LITERATURE

N T —T B LD FA L IGUR S IN BRACKETS AT T E FIGHT OF A KEVE ENCE INDICATE TH PAGE O THIS I L N WHICH A RACT OF THE ARTICLE REFERRED TO MAY BE FOUND

SURGERY OF THE HEAD AND NECK

Head

D p J f ct f th t v ff f th f o t l
M DE d l Co m l y o h 9
(10)
A a f l g m t f th f t f l n m fl a d
m d l l T J F t ER l R y S M d Lond
7um f th f tal b W I B o o n P c Poy
So M i L d 9 69
I t t l i t f th p t l b o W L O V A R D
B t M J o 495
T m g m t f h d j l D M C C L U R E d
A S (R A F B D J M h g t e M S 9 7 x
540
I cal f to f th h d L E P o A O t l
Kh l & L y gol o 98
St pt c m s n f to a g f t e l
th m l H J P F r C a l f & W e t M d
9 x 364
O t b l i t t th mb phleb t f th l t e l s
th mp r f t d t y m p a m D M R e s p e c h
d d 9 93
A c e p t l t l th mb w th d e y d
m t t R A L E v A O t l R h l & L a y
g l 9 x 65
I h d g f i t l s f t G L T o n x
A t t M J o x 59
S g l t t f t s o f th l t l n u s a d
t l j g u l C l x s N d J D L S x
I d ch P l 44
C g tal m l f r m t f g the m d d l f
th f E C u p A B l l m e d o 5
D f o t f th f c E D H i m r S th M J
9 x 688
M k f y d m p t f A J
S C H A P F R d W J c v A m J D C h l d 9 7
3
A a m p l t f p d m p t t E
B t A i R f m m d 9 7 l 96
Th t e m t n f p t p u s p p at p i d t s
W H F r i e A S g 9 7 l x 44
F t l f St s o d t c d b y d the p y R
M d P M L R E B l l t m e m S o c t d h
92 l
P p l l m 7 St o d c t f f w d b y g e a t e l g
m n t f t h e p t d g l d c s e l d g H N
B R N L r l R y S M d l f d o 73
M r e m l t t m o f th h k f 3 s d t
C A W A Y E H A m J S g 9 9
Th d a d t e m t o f f t f th j w
O J o I p g Th m
Ch l g m c f th i p j w G W B
G E o v a d l C O t e D I R o y S c M e d L d
9 7 9

Ch sc hyp pla of th upper j w F B G L I N E Y
I o I y S c M d Lond o 730
M t a l l c f p th o g h the b o t h l d th c e d
r a m p l c s f r a c t s o f th l r j w th
c o f b i t e l r e t o d t l f r c t C J E O R M 7 d
M D A R C I S S A C B u l l e t m e m S o c n a t d h 19 7 l
53
R s t o a t of the m a d b l e b y o s t e o p o s t l t b l
g I t P C A S S A V L L O A h t a l d c h i 9 7 x 9
B l a t l e c t o of the m d b l f o p g t h m L
S c u l t z S g G y e c & O b t 9 7 l 39
Th p th l g y a d i e t m e t o f l o o t t h W P R A F F
F o t h d Z h h l k 9 7 4 S
I t h t t of th p h o l o g y o f d t e s
y t w i h a n e t m t b e d t h e E S P R A W S
P o l y S M e d L o d 9 7 8
A d e m o f th a l y g l d t h p t f a p o s b l
a J M c l R d o A m J M S 9 7 c l a 36
M s c l a d o u r y e c k n d t h c e i f t h
f l y m m e t y O B E C K Z t l b l f Ch 9 6 b

Ey

Ophthalm n t c t w th t l r y n o l g y W F I
L U E E A O t o l R h n o l & L r y n o l 10 x
86
O p h t h m o l g y d t h c s l t g o p t u m G W
H A R y M d J A t l a S p p 9 7 p 6
Th t h q f t c t n f t a o c l f o g b o d s
b y m e s f t h e g t l c t o m n t M a r q u e z M e d
l b 927 6
A p c f t e e l m e d f m t h e y w i t h a m g n e t
C T W F E h e t k y M J o 54
T w u o p t l l l G L J o i s A c h
O p h t h 9 7 l 465
L a t d m o t t o f th f i l t t o g l H
H E R B R T l I y S o M e d L o d o x 95
A y h e l d J M l t r o v J A m M A s s 9
l 58
O t i s f m d t h y o d t h o t
s p e c f t S M O O R E A n O t l K h i o l & L a y l
19 7 x 66
O f m f t a t b l s y p h l t b t
c g t l p l v t F U C H P r o g d l c l M d d
9 7 64
I g s d e a s o f th v W M C L A R E S J
M e d C t 9 39
E t m l e y d i E R C o S L E Y I l h M J
19 f
C s f l i d e M s o n a d S t L o H D
L S A h O p h t h 9 7 l 469
Th l f m p o t a f m t t a t p h t h l m
I A Z L A v h d m d g y e s p e l o 9
M e t t i p h l g m p p h t h l m t G
B r e t A m J O p h t h 9 7 3 s 085

- Non suppurative intra ocular infections (including re
tinitis) II F SHORNEY Med J Australia
1927 19 7 p 83
- Ocular phlyctenulosis and tuberculosis I WIEBERS
Brutelle mcd 1927 vii 18
- Tuberculo- of the eyes clinical forms diagnosis and
treatment Parts I and II J Irgo IAVFA Iev med
lat Am 1927 vii 830 991
- Tuberculo- of the eyes clinical forms diagnosis and
treatment Part III J Irgo IAVFA Iev med lat Am
1927 vii 1583
- Tuberculo- of the eyes clinical forms diagnosis and
treatment Part IV J Irgo IAVFA Iev med lat Am
1927 vii 1183
- Iritis in the apy in practice B W KLEY Am J Ophth
1927 38 x 666 [3]
- Vaccine therapy in ophthalmology TRULIERIS J de
med de Bordeaux 1927 civ 59
- Krukenberg's spindle E THOMSON and A J BALLAN
Tyne Brit J Ophth 1927 xi 450
- Dry fertilization of instruments W C LINOFF Am
J Ophth 1927 38 595 [3]
- Ocular lesions produced by lax technique in general
anesthesia J ARJONA Med Ibc a 1927 vi 13
- The antitracoma campaign in the Province of Tucuman
D CALANCA Seman m d 9 x iv 9
- Experimental studies of trachoma II NAGUCHI Arch
Ophth 1927 1 43 [3]
- The experimental production of a trachoma like condi-
tion in monkeys II NAGUCHI Am M J 1927
lxix 730
- The problem of trachoma in the rural districts I
FLORES FERRO I PUIGCARI and II CRAVER Semana
med 1927 v 396
- Lesions of the oculomotor apparatus MALLODE LA RIVA
Arch med cirurg especial 1927 vii 52
- Operations for strabismus I S MUMFORD J Ophth
Utol & Laryngol 1927 xxv 127
- On the mechanics of the quint operation II JOHNSON
Arch Ophth 1927 1 425 [4]
- A primary tumor of the lachrymal gland M S
LESCUDERO Clin y lab 1927 vii 85
- On the pedigrees of hereditary optic atrophy C H Usher
Brit J Ophth 1927 xi 47
- Iridobulbar vascular cataract C GOULDEN Proc Roy
Soc Med Lond 9 xx 94
- Abscess of the orbit W T CARRUTHERS Am J Surg
1927 iii 66
- A pedigree of a family showing hereditary glaucoma
P R JAMES Brit J Ophth 1927 1 438
- The cause of the glaucoma of hypermature cataract
II CUFFORD Arch Ophth 1927 lii 47
- Observations on the use of glaucoma in the treatment of
glaucoma N E ISRAEL Texas State J M 1927 xxii
34
- Ray therapy in certain types of glaucoma R I
LLOYD Arch Ophth 1927 lii 445
- The Reese Holtz operation for glaucoma I I
CALHOUN South M J 1927 xx
- A family with blue sclerotic J N DUGGAN and B P
NANAVATI Brit J Ophth 1927 xi 445
- A family history of choroidal sarcoma P C DAVEN
PORT Brit J Ophth 1927 1 443
- Routine keratometry D SMITH Am J Ophth
1927 38 x 67
- Arguments of glass in the cornea examined with the
hot lamp L W JESSIMAN Am J Ophth 1927 38 x 67
- Barms of the cornea C S DODD Virginia M Month
1927 lii 373
- Pseudo pterygium H NEAME Proc Roy Soc Med
Lond 1927 xx 1793
- Membrane in the anterior chamber C GOULDEN
Proc Roy Soc Med Lond 1927 xx 194
- A family with aniridia J N DUGGAN and B P
NANAVATI Brit J Ophth 1927 xi 447
- Isential atrophy of the iris J M GRISCOM Am J
Ophth 1927 38 x 647 [4]
- The value of autophemolysis in idiopathic iritis
MALLODE LA RIVA Med Ibera 1927 xi 100
- Occlusion of the pupil with iris bombe and secondary
glaucoma J GREE JR Am J Ophth 1927 38 x 657
- The cultivation of lens epithelium in vitro D B
KIRBY Arch Ophth 1927 1 450 [4]
- Traumatic affections of the crystalline lens J O
McPYNOLDS Texas State J M 1927 xxii 336
- Two cases of true diabetic cataract C GOULDEN Proc
Roy Soc Med Lond 1927 xx 195
- Cataract extraction J L IAVFA and M DUSSELDORP
Am J Ophth 1927 38 x 661 [4]
- Operation for senile cataract O B NUGENT Illinois
M J 1927 lii 250
- The operation for cataract and its technique MALLODE
LA RIVA Arch de med cirurg y especial 1927 viii
64
- The intracapsular extraction of cataract is the operation
of the future VAN LINT Bruxelles med 1927 vii 1186
- Iridopapillary iridectomy in cataract operation M NIDA
Am J Ophth 1927 38 x 684
- Iridopapillary iridectomy in theory and practice J K
ANDERSON Mel J Australia 1927 p 1
- Iridopapillary iridectomy of the human eye I D REDWAY In
ternat J Med & Surg 1927 li 361
- The photogravure of the fundus of the eye Irgo IAVFA
Iev oton uro oftalmol y de cirug neurol 1927 i 69
- Semana med 1927 xi 445
- Photographs of the fundus oculi normal and pathologic
cal conditions with a cinematograph single and stereoscopic
lenses A J BEIFEL New York State J M 1927 xxvii
9
- Asplint of the retina on the retina J FEJER Am J Ophth
1927 38 x 64
- Vascular lesions of the fundus oculi W T DAVIS Arch
Ophth 1927 1 477
- Early retinitis pigmentosa II NEAME Proc Roy
Soc Med Lond 1927 xx 1793
- Bilateral prepapillary vascular loop of the retinal artery
A M YUDKIN Arch Ophth 1927 lii 474 [4]
- Arterial spasm and occlusion of branches of central
artery of retina II P WAGENER and J F GIPNER
Am J Ophth 1927 38 x 650 [5]

Ear

- Progress in otology H M GOODYEAR J Med
Cincinnati 1927 viii 37
- Pediatric aspects of otology NICK MARRIOTT
Ann Otol Rhinol & Laryngol 1927 xxvii 686 [5]
- The clinical importance of otology in otology
ology I D LAWSON Semana med 1927 xxvii 19
- The relationship of the endocrines to otology
F E POOS Laryngoscope 1927 xx ii 671
- Allergies related to otology W W DUKE
Ann Otol Rhinol & Laryngol 1927 xxvii 80
- Does a stapedial defect cause deafness? Results of
a final experimentation I A BARLOW Laryngoscope
1927 xxvii 640 [5]
- Explanation for the symptom of paracusis of the
demonstration G E SHAMBAUGH Arch Otolaryngol
1927 vi 28 [5]

The p bl m of p e de fnes th h p of ts
s l tion by the h w k H S I RITCHETT l y
go cop 97 63
Th probl m f p o es de f th c l ad
ed cat on l p int f l l B o N La yng ol
97 xx 633
The p blem f p g de f e th op cal
poi t f ew l B D f c l ary c p 97 xx
634
Ré mé of the p t of th B a of St nd ds upon
d t ha H D W LKER L r yn c pe 97
xx 63
E ly de l p m t f the b ny p l of the h m ne
T H BAYR L r v g cope 97 65
C l t f th d lymp l S R GU L r yn os
cope 97 xx 640
Ac t conditions g l p t H D GILME
V g na M Mo th 97 63
Th l t tme t f t n s t d d fnes
A l E NA M l l b e 97 9
Ott m dia i f t D M LIER E An Ot l
Rh ol & L r yn ol 97 xx 64 [5]
Ott sm d l v l l C LLA AV J k ns s
M S c 97 335
L tent ott n u g chld n P TESO E P
A oc méd g t 97 149
L t nt tts m da n b d rs g chld
Y F ANCI NT S ma méd 97 90
A te t t l s t n f n e o t n s y t m c
c nd t s ad the fl ol th co d to the
meth d ol t t th o e t g a t t t L W
DEAN A ch Ot l ary gol 927 [6]
Ott s med ch c p l nt H H RICHES
K e t ky M J 97 57
A study n t t c th mbo C D A WRIGHT
M n es t M d 97 55
Tube l s l th m d l F R SPE CER A ch
Otol ry gol 97 4
Tub cul so f th m d l w th p c l l e c to
h lo th py S J CHA IVV A Ot l Rh n l
Laryng l 927 63
A int st g ea l l y b th J J McD MOTT [6]
J Ophth Ot l & L y l 97 x 343
Méné d as t ted by th lect plo od A
FERGUSOV B t M J 97 454
Ch l t tom W G SHET EY J J Ophth Ot l
& L r yn ol 97 33
Imp es s f the d astric reg th m sto d d the
co rs of th t n e n G B LANCOWT l l
tal d h 97 9
A ma t d se W DEAN Kent ky M J 97 xv
52
An un s l mast d ase A H NORTON N thwest
M d r 97 403
Acut m t d t s with t pp t ffect of th
m d l W H SEARS Att t c M J 97
783
Acut m t d t with compl t f c l p l y s
c ery ftr p at A GREE r iv An Ot l
Rh l & L r yn l 97 x 634
D ble m t d t s w th l t th mbo f l l w
n c l t f H H I R S LER Att t c M J 97
xx 8
M r to d t n f t s po t f 4 p ted c
J B SDBR S th M J 97 73
Th l of b o p l f l d f l l w g l of t l a [6]
R BOMPER R p c l d d 97
Th se f l f m p c l t m t s t l g l
surge y P CACCE LUTI A ch tal d ch 97 x
86

Nose and Si nuses

Th f h platy by th l g n m m th od
O IVAN EVIC A d R C FERRARI B l st d cl
q l 97 m l 3
The c ct a t p c d types of saddl no th
d m pl t of bo a d cat l g L COHEN Ann
Otol Rh ol & L r yn l 97 xx 630
N s l affect n chldh d D GUTHRIE P ct
t 97 x 47
Na l m nifest tuo f l l ay C H EYERMA V
A Otol Ph n ol & Lary ol 97 x 88
A chm f m th fa d p nt f the h l o t E
McGINNIS J Am M l 97 l x 99
A oth m l sto e p s d th t eat m t of asthma
A W L F RGE Am M d 97 563
H y p th t c rh n t s d m y c a d m f J No x
J A Otol Rh l & L r yn ol 97 xxv
89
Th t p cal apple to of coc th os E
F H O VARD N w Olea s M & S J 97 l
6
Sph op l t ga gl on t t m t ol c ta n
c d u W D CHASE Att n t c M J 97 x
79
The t s og pl am t ol o z a GHERARDO
FERRERI & L IROL A h int n t d l r yn l
97 769
O e d d m alcy l t DUTHILL r de LAMOTHE
A ch t t d l r y l 97 x 794
Pe a t al s y m p th c t m y a s at t m t l o x b
l t E CASTÉRAN A h t mat d l r yn ol 97
x 8 R p al d d s 97 89
Cl l ob t o n s a c of as l yphul s G
CANUY d J CH VAREL A ch t e nat d l y n l
97 83
A h l th ol nu l s z A L B S S K e t c ky M J
97 533
Th l t of as l polyp t n f m m to of th c
essory es f th o T B L VTON P o Roy [6]
S M f d L d 97 x 74
Th p n l c tes D C SMYTH Arch Otol r yn
g l 97 49
Ch al t e m ds s n f t o n W E G OVE A h
Otol y ol 97 237
S m ph s o l ac ry n s d s M C M I RSO
A ch Ot l y n l 97
A c e f u t s w th c m ph t s ph l e m n of th
o b t J A G R P o c Roy So M d L d 927 xx
776
M t s f l o n t d y l s r g l t m y
R F N LSON An Otol Rh ol & L r yn ol 19 [6]
xx 7
A c o f f t l t J A GINN P o R y Soc
M d L d 97 x 776
F t l t c m p l e t b y t ad l a b c a d
f t l l b e b c J M BRO N An Ot l Rh n l
& I r y g l 97 xx 17
F t l m p m y h l l n w th s e al
c po t I M LUTON A Ot l Rh l & L r yn
g l 97 1003
D f th th m d l b y t l M M CA LAW
A Ot l Rh l & Laryng l 97 1733
Th b l app l to th th m d l A l e cr
Med J A t l 97 460
C f h o c m p m f th trum f t p rat
th f o n t m H k s c t P o c R y oc M d
Lo d 97 77
M l b nt pla m f the trum G H THOMT [7]
Ann Ot l Rh n l & L r y g l 97 xxv 75

Mouth

- The treatment of furuncles of the upper lip J SÉNÉQUE
I se méd Par 19 7 xxxv 95
- An extensive squamous cell epithelioma of the lip G A
WETH Am J Surg 19 7 iii 95
- Cleft lip and cleft palate A L FREW Texas State
J M 1927 xxiii 333
- New methods of radical uranoplasty for congenital cleft
palate osteotomies interlaminae and pterygomaxillary
resection foramina palatini and a new button suture
fissura ossea occulta and its treatment A LINBERG
Zentbl f Chir 1927 liv 1745
- Diseases of the mouth primary and secondary F I
GILMER Illinois M J 1927 liii 93
- The prevention and treatment of thrush (oral stoma-
titis) H K FABER and E B CLARA Am J Dis Child
19 7 xxxv 408
- Supernumerary tubercles of the molar teeth their varie-
ties and significance G ODIO de GRANDA I se méd Pa
1927 xiv 1035
- Mixed tumors of the molar gland L P FIFEELD
Lancet 1927 cxxiii 65
- Transitional cell epidermoid carcinoma a radiosensitive
type of intra oral tumor D QUICK and M CUTLER
Surg Gynec & Obst 1927 xlv 320
- Carcinoma of the floor of the mouth—recurrence on the
opposite side of the neck 8 years after the operation J
DOUGLAS Ann Surg 1927 lxxvi 460
- The treatment of the cervical glands in cancer of the
tongue J L POUY FROGER I se méd Pa 19
xxx 88

Thyroid

- Some phases of the tonsil problem W MITCHELL
J Med Cincinnati 1927 viii 31
- Albuminuria in relation to disease of the tonsils a fur-
ther report C P JONES Virginia M Month 1927 li
346
- Tonsil infection with a report of cases J C TUCKER
Ann Otol Rhinol & Laryngol 1927 xxxvi 748
- Bloodless tonsillectomy I I HERMAN J Am M
Ass 1927 lxxvii 105
- Carcinoma of the tonsil W E BROWN Atlantic M J
1927 xxx 782
- Salivary gland carcinoma treated by X-ray therapy and
excision C G CURRY Proc Roy Soc Med Lond
1927 xx 177

Neck

- Branchial cyst P C COOPER J Ophth Otol &
Laryngol 1927 xxxi 339
- Further studies of the parathyroids their secret on
their importance to the organism and the possibility of
their substitution F BLUM and F BINSWANGER 1927
Jena Fischer
- Parathyroid preservation W I TERRY and H H
SEARLS J Am M Ass 1927 lxxviii 966
- The thyroid the sympathetic and the parasympathetic
system an experimental contribution to our knowledge of
the effect of nervous influences on thyroid secretion R
PAOLUCCI Arch Ital di chir 1927 xxviii 107
- The replacement of the serum calcium in thyroid gland
in rabbits after intravenous injections of oxalate H W C
VINES Endocrinology 1927 xi 290
- Dermatophagia in relation to dysthyroidism M KERN
Am Med 1927 xxxi 565
- Studies of the thyroid apparatus ALIX The water
balance in conditions of thyroid and parathyroid deficiency
F S HAMMERT Endocrinology 1927 xi 97

The effect of thyroid extract upon bodily function in
hypothyroidism C H LAWRENCE Endocrinology 1927
xi 31

Three types of cases of thyroid enlargement and their
treatment W A MACKAY Glasgow M J 1927 cviii

Inflammatory lesions of the thyroid gland E M
LHERTS and P R FITZGERALD Canadian M A s J
1927 xii 1003

Hydatid cysts of the thyroid gland J BASAVILBASO
and H BRANCULLI Rev especialidades 1927 iii 301

The world extension of endemic goiter L MAYER
Bruxelles med 1927 viii 1461 1494

Report on the etiology and epidemiology of endemic
goiter in France L BÉRARD and C DUNET Bruxelles-
m 1927 viii 150

Goiter and endemic dystrophy W LOR PETHFR
Be l klin 1927 xxxv 1

Rational iodotherapy F MAST Folha med 1927 viii
184

Dangerous tendencies in iodine therapy F S WETHFR
Ill Am J Surg 1927 viii 247

The associated cardiac states in hyperthyroidism A
McMURRAY Med Clin N Am 1927 xi 515

The management of goiter patients with cardiac
complications S B GRANT Med Clin N Am 1927 xi
560

Paralysis of the recurrent nerve in goiter I O ZILBER
Pev m d d Posario 1927 xvii 365

Multiple adenoma of the thyroid complicated by
metastases A B MCGRAW Am J Surg 1927 iii 27

Goiter The proliferative goiter of Lancet
reports E BIRCHER Beitr z klin Chir 1927 cxxxv
11

Toxic goiter cardiovascular manifestations J I
JERMAN Wisconsin M J 1927 xxvi 40

Thyrotoxicosis and associated vascular diseases
cotonic syndromes V E SHERRS Am J 1927 viii 7

Non palpable thyrotoxic adenomata L J. THOMAS
and A. THOMAS I se méd Par 1927 xxxv 1

Basedow's disease of the thyrotoxicosis
associated with myxoedema O I. COTTELL 1927
xxxv 439

Exophthalmic goiter and the involvement of the
temporal artery III The course of the sub-
jacent manifestations of exophthalmic goiter
patients I KESSEL and H T HYMAN 1927
xl 314

The Basedow syndrome 6 months
iodine the diet of heredity J. THOMAS
Soc med d hôp de Par 1927 xliii 61

At the craftsmanship of the thyroid
Stout Ohio State M J 1927 xxvii 1

Haemostasis in goiter surgery F H. J. J. J.
M A s 1927 lxxviii 383

Haemostasis in goiter operations
chir 1927 xxxv 10

The development of the laryngeal
membrane in the human larynx I. L. J. J.
pe iod of development L. SUOLANEN
Fennica Duodecim 1927 viii No 8

A coelobium in the larynx and the
K. G. J. Med Cincinnati 1927 viii

A case of fistula of the larynx
Poy Soc Med Lond 1927 xi 172

La abs of the right vocal cord
J A GINN Proc Poy Soc Med 1927
xx

Streptococcal laryngitis report of
rare complication V K. HART
Laryngol 1927 xxxv 81

A larynge l es t d th pp ent m lary
t b c l s i s f t h l g W G I l w a r t h P c l o y
Soc Med Lo d 9 68
Trichlo acet c a d i t h t m t f l e t e l r y n
g al tuberc losis B C D a i e A O t l R h n o l &
L a y n g o l 9 7 x x 8
A n i t l r y n e a l t m b b v d 4 d y s W
I b o t s o v P o c R y S M d L d 9 1769
T b r o m a t a (o p p l o m a) f t h e l a r y W I I J E E t
P o c R y S c M d L o d 9 7 x 9
A p t d p p l o m f t h l r y e f d g n o
N S C A R R E P c R v S M d L d 9 7
x 74
C c f t h l a r y n I O Z N R m e l d P o s a o
9 36

C a n c e o f t h l r y n J C F L O R E R m e d d
P o 9 27 x 37
M l g n c y o f t h l a r y n a d o e s o p h a g u s t e t d b y
d u m m a n a t a I R H E R R I M A N L a r y n g o s c o p
9 7 x 664
T h c o e o f a p r e l e c a m o f t h e l r y n w i t h
c m l a n e d d i m a d x y t e t m t C C o r t o l e y
R m e d d I S u i s s e R o m 9 7 l 55
T h l o f r g y n a t h e m o d x r v t a t m t f
c c e i t h l r y n G P O R T M A N A O t l R h n l
& L R y g l 19 7 x x 656 S o m p o t s i n t h t c h q
f l r y o f c W H O W A R T H I R y S o c M e d
L d 9 7 x 74
T s e s o f l r y g c t m y M T I T O N E A c h i t a l
d c h 9 99

SURGERY OF THE NERVOUS SYSTEM

B a i n a n d I t s C o e r n g s C a n a l t h e r e s

The l o c l i z t f t h t l t f h a g l W
W A T A Y N T H J l v l & O t l o l 55
593
T h e s e b l t f t h d t o f t h b M
N L D o D t h m d W c h h 9 l 9
S m p h y l l p p h t h d f e
b a l a d m e d l l v m p n A l t h e l
m e d P 9 7
T m t a p o p l y m t h a l t t h J y B R I S E r
B u l l t m m s t d l o l 9 83
A f t m t c j k p l e p y I W E R
E k d L F r c I o h o 304
J k s o p l p v d t o h y d t d c y t M
A L U E R L D E M J S E H d L D l o R P
l d d 9
A c e f a p h a d e t m t o f t h t f f t d
A P B R W B t J R a d l 9 x 3
A l c h o l j t t o t h t o f t h b t h t o
V V N S A R O F F Z e t r l b l f C h s 9 7 l 48
T h m p l v d m f t h e g f t h h m v
C R I S T I A N S E N L l l m d o 46
B b c f t t F L H A O t o l
R h o l & L r v g l o x 68
A h o n t m p o p h d l b d c o d d g
n p p t c t p p t t m d a p t o f a
w t h p t m t t t J R R B E R T
A c h O t l y n g l 9 3
T p h n t f t h r p l l m D G O R E S a d
D E N S J d e h 9 7 4
T h h y p h y n d t m a l t o f t h e a y
I B o u n a d H S t H l l m e d 9 7
94
T h f l u c f h p h y g l d o t h e l y p
p l y s e l y t m s C e i R f m m d 9 7 l
697
H y p p h y c a l v d m l l d e c m p o b y t h
t a n p h d l t W E T I E R d B R R a v d
L y o c h i r 9 460
O b r t m f p t a r y t m v i t h l t l
q u d t h e m p I G S P I D E V g M
M t h 9 7 l 3
D t r u t m e t t a t I f t h h y p p h y
D O M I N G U E Z I A G O d M O L A I m e d d
U r g 9 7 x x 43
A s f a m a l l g g t m B R e f g e A r t
R m e d d B c l 9 7 4
H y p p h y t m y b y t h e I t n o m e g a l
G G R o z i A h t i d c h 9 63

T h m p o t c e o f d r p t o a b t e d
g v e s p c l l y g a d t h a s e d p t l
h y d o p h l f t o p a t n s f o s p b i n d a H E R R I M A N
Z n t l b l f c h 9 7 l 384
H y d p h a l f y J F J A i c s S g C l n
N a m o 9
T h p h y p t h o l o g y d t e t m t o f h y d o c e p h a l
M T S r C l y l b 9 9
C l l l o m a d y t a m l h e m h
A R E M O V A c c o a d H C O L U M B I E A m e d 9
T b e u l m f t h b n F D W A R C R t o
f t l m o l v d c r u g l 19 7 78
C d t c f b a l t m o c d b y
o a t g t h a p y S A T T L J A t i t p u 9 7
T h d g d t e a t m t f f a n t m s W E
D v o y J I d i a S t t M A 9 7 x 39
T h e p u n l g l d P T H E R I N G B t M J 19
546
L y p e u m e n t l e t d e s o f t h f u t o o f t h e p u n a l b y
P D E M E L M t t d G e g d M e d C h i 9 7 l
32
T m s o f t h p e l g l d M B L A D O A c h a r g e n t
d e n u l 9
V o f o n t l c p h l m n e c l a d c g t a l h y d
p h l C B U N E T A h t a l d a h 9 7 x
6
A b e l m o c p h l c e l t d w i t h
m e p h t h r u m M C o r v J m v l s 9 27 l x l
746
S m e t y p o f m g t B C R t v v A b l a
S t t M J 9 336
M i n g t d t h a m p h l c b l l s J A B
H I C K S I t 9 7 c 49
H f b l l s m n g t s A S C H R I B E L M d S
g n 9 7 l 339
V o m m o f t m g t I J C C N
P o l l R m 9 p t 35
A t m t A M C G L I i f r m m e d
9 l 98
S m c d t o t h e t o l c l d o s i s d
t h e t m t f c t m i g t M A M C t A n
m d o 6
M i n g t f p h o d l h i n M v [9]
P R y S o c M d L o d 9 7 x 763
P m y m e g t d u t o m m p d t n e r v u s e
q u k e L J O U R I H I L L E M d d L J U S T I N
B E Z A G O V B l t m e m S o c m e d d h o p d e P 19
1

Tuberculous meningitis of very long duration LAIGNEZ
LAVASTINE VALENCE and POLACO Bull et mem Soc
m d hôp de Par 192 xliii 1093

Meningococcal meningitis in infants and children treated
by Flemer serum G K THORNTON Lancet 1922 ccviii
544

A rapid method for identifying the type of meningococ-
cus in epidemic cerebrospinal meningitis T IONIANO
Pol clin Rome 1927 xxiv sez prat 1099

Injection of the nasal ganglion and a comparison of
method G SLEDER Ann Otol Rhinol & Laryngol
1927 xxxvi 648

An improved technique for injecting the third division
of the fifth cranial nerve A B K WATKINS Med J
Australia 9 7 ii 40

The question of scar formation from the treatment of
trigeminal neuralgia by injections of alcohol into the gan-
glion D KULENKAMFFER Muenchen med Wchnsch
1927 lxxv 897

Facial paralysis from cranial trauma M K BOMPET
Rev especialidades 1927 ii 309

The treatment of facial paralysis due to exposure A P
BERTWISTRE Brit M J 19 7 ii 494

Tumors of the acoustic nerve T FRACASSI and F R
RIZ Re med d Ro ano 192 xviii 331

Spinal Cord and Its Coverings

Poliomyelitis control G E EBRIGHT California &
West Med 9 7 xxvii 354

The Omaha 925 epidemic of acute anterior poliomyeli-
tis with a clinical analysis of 29 patients and clin copatho-
logical abstracts of 3 fatal cases B C RUSSOM and T J
HULLSTON Med Heald & Phyiotherap 92 xli 45

Tumors of the spinal cord A DELAGENIERE J de
chir 1927 x x 56 [9]

The role of lipodol in the surgery of medullary tumors
ROBINEAU Bull et mem Soc nat de chir 92 liii
668 [9]

A case of traumatic hematoma of the spinal cord H VERGER J
de med de Bordeaux 1922 ci 6

Medullary abscess after typhoid pleurisy C I URECHIA
and M MATYAS Bull et mem Soc m d hôp de Par
9 7 xliii 1137

The radicular syndrome J M NIELSEN Bull Battle
Creek Sanit & Hosp Clin Battle Creek Mich an 19
xxii 248

Lateral anterior chordotomy in painful spasm of a
stump orthomosis recovery SICARD HAGUEAU
and R WALLICH Bull et mem Soc med d hôp de Par
9 7 liii 19

Peripheral Nerves

A case of compression of the brachial plexus by the
first rib MILLER & Zealand M J 19 7 xxvii 19

Injury of the upper roots of the brachial plexus during
a laparotomy with the patient in the Trendelenburg
position A BASSER Bull et mem Soc nat de chir
1927 liii 565 [10]

Supracondylar fracture of the humerus with immediate
radial paralysis resection of the nerve and suture followed
by rapid recovery C LASSERRE and A MOUTCHER Bull
et mem Soc nat de chir 19 liii 1003

The technique of transposition of the ulna nerve I
JAUREGUI Bol inst de clin qu 1922 iii 10

Neuromatosis of the internal pubic nerve CONDAMIN and
WERTHEIMER Lyon chir 19 7 xxvii 460

The ischialgia syndrome and roentgen therapy C LUCIA
Actinoterapia 19 7 vi 163

Sciatic nerve paralysis following alcohol injections
W R FISCHER Illinois M J 1927 lvi 235

A cyst of the external popliteal and sciatic nerve A
DIMITRI and M BLADO Arch argent de neurol 19 7
13

The diagnosis and treatment of postdiphtheritic poly-
neuritis F MAJEROV Polichin Rome 1927 xxvii sez
prat 111

A standard technique for operations on peripheral nerves
with especial reference to the closure of large gaps W W
BARCOCK Surg Gynec & Obst 19 7 xlv 364

Sympathetic Nerves

The sympathetic system and the creatinin bodies their
relation to muscle tonus epilepsy and the psychoses of
anxiety and asthma P ANDRE Presse méd Par 1927
xxxv 1114

Has the surgery of the sympathetic an anatomical and
pathological basis? K LERICHE and R FONTAINE J
de chir 1927 xxx

Sympathectomy performed on a leper BRUGEAS and
F M CUDENAT Bull et mem Soc nat de chir 19 7
liii 1011

Report of a new case of neurotomy for tabetic
gait crises J VERBRUGGE Bruxelles méd 19 7 vii
1222

Separation of the hypogastric plexus from the uterus in
lumbosacral pain CONDAMIN Lyon chir 1927 xxiv
430

The histological structure of the presacral nerve COTTE
and NOEL Lyon chir 92 xxiv 404

The technique of resection of the presacral nerve COTTE
Lyon chir 1927 xxiv 43

Experimental studies on vasomotor innervation the vas-
cular reflexes of the limbs P LERICHE and R FONTAINE
Presse méd Pa 9 7 xxv 832

Experimental study of post-traumatic vasomotor
turbances of the limbs R FONTAINE and MLOJEVITCH
Rev de chir Par 19 7 vi 385

Miscellaneous

Comments on progress in neurology H H FLOPPE
J Med Clin nat 19 viii 331

Cerebral sensibility J P ALVAREZ Rev méd de
Bacelona 19 7 i 114

The encapsulated tumors of the nervous system
meningiomas, neuroblastomas, perineurial fibroblastomas
and neurofibromas von Recklinghausen W IENFIELD
Surg Gynec & Obst 9 xlv 178 [10]

On the occurrence of brain tissue within the nose the
so called nasal glioma D GUTHRIE and N DOTT Proc
Roy Soc Med Lond 9 xx 1749

Combined suboccipital and lumbar puncture W PIRES
and H POVOA A ch bras l de med 1927 xvii 67

Some preventive methods for eliminating the incon-
tinuities of lumbar puncture J MOUZON Presse méd
Par 1927 xxvii 997

A substitute for the mercurial spinal manometer G J
VISCOT J Am M Ass 19 lxxxix 883

Note on the determination of uric acid in the cerebro-
spinal fluid R S HUBBARD Clifton M Bull Clifton
Springs N York 1927 viii 88

Two cases of late paraplegia due to foot spondylitis H
VERGER J de med de Bordeaux 1922 ci 59

SURGERY OF THE CHEST

Chest Wall and Breast

Tl f ct l p ty of th f m l m mm ygl d
 A Kol m N A h f k d h 9 1 8
 A c n tal b e t t m C N T INING B t
 M J 9 7
 Ac t b t t th d f P t d of the
 pl nd Gv hyp th J M W hr Am J
 S g 9 8
 Bl d f m the pl J G K A t h b
 S d 9 l 5
 Th mpo t f pl ta m th t t
 m t of m mm y A J B o k Am J Ro t
 g ol 9 44
 A t d y f th m l t b t l v h l s t d
 l y bl c s t m th l J l A R S b Gy c &
 Ob t 9 l 66
 M mm ry sa c m d t l t t h b o f th
 b t d f b b t t m M B E B t
 kl Ch o l
 Th n t t m t f m of th t t
 J P L LICK S Cl y lat o S
 Th t atm t f of th h t b v d t
 E O r l sch
 A m pl t p t f f th b t J F
 JEN I G S g Cl N Am)
 Th t m t f f t l l t th d w th t
 b q t t t m t D SCHO d C
 ORN A t d l 9 f t f l l amp t t o f
 fl t l f l 9 f t f l l
 th b t A (R C Z t l f l f l 9 l 9 3

Trachea Lung and Pleu a

N tes of th h o ch p e c W S S ME l
 I o S M d L d o f o
 F b d th d f d l g s H J
 K E N O l M S J 9 l 84
 Th N d f f S b d th p s
 and th crs ph C M C M d M d J A t l
 9
 P d t 3 9 l t m t l th l ry t leol
 chual t f Mc Ill o M J o l S
 A l l d th l d hy hpl l
 mphy em S A e A t d l o
 B smuth be bo t d l p d l m pp s
 F H L S s g Cl N Am 9 03
 Th f d u d l th h z t n f th ho
 chal t L C A L J K M S 9
 29
 Iodi m foll w th t bo l l j t fl p dol
 E LIBE r a d M B IE B l l t m m S c m d d
 h o p d Pa o h o s [11]
 F th ob t n th t v t atm t f
 b h l th m d all d co d t I G E FR
 R d lo y o
 New d el p m t p l m o phy logy J K t
 A ch m e d h del pp p 9 4
 Ac te d p th p l m o y c e d m C R R A S C O M
 TINEZ A ch d m d ug l p e l 9
 P t p at m l l p f th l g J T
 MCKINNEY a d W B PORTER S th M J 9 7
 68
 The oentg o pha p m n l h a d t
 duffe nt l d f m th ff t f th l
 P T M ELLE Acta dol 9 93

Act om y os of the l gs and s p ls J T
 CHRISTI ON nd M WARWICK J Am M A 9
 L t 43
 A of prm y ct myco s of the l ne th
 s co day p tent C D COYLE L s ct 92 ccc
 6
 N a p h c p l m ry n f c to w th h o s n s t
 a a etolo c f ct G PRESTON A g a M Mo th
 9 l 3 S
 Th h lo of th p at y t ct v e d f m the
 mm ty a d bol al a p e c t D NIS BAUM Ann
 Ot l Rhu l l I ary n l 9 7 x 68
 Tl c ont the d e c t c of t be cul
 d a e f th l u g HENAL r d MORALIS P m e d l
 9 833
 R m k s p n th t h que f flat the cou
 f p e moth J STRASSNIE F e m e d P 19 7
 x 844
 A t f al p um th o t a t a d p ly op th
 l c l m h m EGAN A h de med rug y
 p l 9 7 4
 A c f t f l l pneum th a w th med t l
 h n f Co n t J d m d d Bo d x 9
 558
 P m k s n t l t ch q a d o p e t r e l t s f
 t pl l th ac pl ty fo p l m y t b cul s A
 Bo t r A h m l c l d l p p a r p 9 7 5
 B on h e t a d m d t al pl y J T m e a d
 R SOREL B l l t m m S c m e d h o p d Pa 9
 l 9
 C of th l f e fo m d w th pauf l
 mptom M Lo d K GARCIA B l l t m m
 S c m d d l o p d l 0 7 v l 5
 C c f the l w th a e p o t p 4 ca O
 K r Ca da M A S J 9 7 989 [11]
 A c f p m ry c om f th l sho both
 t l t d pl l f f o K Ko m m Am J
 Ro t g ol 9 [12]
 Th t e l l p is of p m a y t m o r s f the
 l g T l H E E nd G W HOLME Am J R t n l
 9
 R t e 35 ph p ts th o s f n e f
 Th l g G NIE C HAL OUL N S y l C h e
 B l l t m m S c m d d h o p d l 9 7 l 33
 l ry om f th lu childh d A SEGERS
 d P S UERRE S m m e d 9 7 5
 Th t m t f c t p p t p l e y h l d e
 J A B r Am J Sug 9 7 3
 O th p n e f p t e t d n a b m n e
 f p t d pl y F BEZ c v A J COLETT E
 Er ne v a l J CELIC Bull t m m S m e d d
 h o p d l o l 53
 A s of l e m h c pl y f t b e c l s t
 I E v d BIDE U B l l t m m S c m e d d h o p
 d P 9 l 35
 f p t m d t l pl y th
 y m p t m f b h t A GE D OY nd L L f
 o B l l t m m S c m d d h o p d P r 9
 l 9
 f typh d f w th pl t f F
 Mc H E R N Ca d M A J 9 7 6
 The g cal t m t f t b e cul s p y p m th r s
 G M E GAL A ch t l d l 9 7 x 6
 Emp m ep t f s c s t ted by m pl b t
 effi t m th d E E BU ER K t ky M J 9
 v 53

Fatal pleural eclampsia following exploratory puncture for empyema M SPROZZI Polichin Rome 19 7 xxxv sez prat 1000

Heart and Pericardium

On a rare issue of pericarditis exudativa combination of concretion and cyst formation I KIENBOECK Brit Radol 19 7 xxxii 3 2

Some considerations on cardiomyosis F OPARZO Bol Soc de Ciruj de Chile 9 1 16

Pericardiotomy for pyopericardium a review of the literature to May 19 7 and a report of ten new cases W WINSLOW and A M SHIPLEY Arch Surg 19 7 xi 31 [13]

Esophagus and Mediastinum

Foreign bodies in the esophagus and external cervical esophagotomy F MARIELLI Arch Ital di chir 92 viii 139

Radiopaque foreign bodies of the esophagus F H LASHER Surg Clin N Am 192 vii 930

Cicatricial stenosis of the esophagus and pyrosis secondary to the ingestion of caustic liquid P ROCHET and J BERNIER Lyon chir 92 xxvii 40

Idiopathic dilatation and congenital stenosis of the esophagus C IMPERIVALE Riforma med 192 liii 1

The pathology of esophagectasia (dilatation of the esophagus without anatomical stenosis at the cardiac orifice) I MOORE J Laryngol & Otol 19 7 lii 77 [13]

A benign polyp of the esophagus of great size S C DYKE J Laryngol & Otol 19 7 lii 588

Padium implantation in esophageal cancer J MUIR Laryngoscope 1927 xxxviii 660

The route of access to the thoracic esophagus V GHIRON Polichin Rome 19 7 xxxiv sez chir 3 3

Thymic enlargement as a cause of atelectasis J P COSTELLO Med Clin N Am 19 7 vi 583

Thymic stridor W W WASSON J Am M As 19 7 lxxxix 10 [14]

Thymic death in a case with no previous symptoms and negative X ray findings D E BERNEY Atlantic M J 19 7 xxx 787

Röntgen diagnosis and therapy of the thymus in children J REMER and W W BLDEN Am J Roentgenol 192 xiii 110 [14]

Lymphosarcoma of the mediastinum in a child V J SCOTT JR Arch Pediat 19 7 vii 548

Miscellaneous

Pneumothorax of the chest T G ORR J Missouri State M Ass 19 7 xiv 47

A case of purulent infection of the chest C L CONROY Illinois M J 1927 lii 4

Multiple hydatid cysts in the chest Brit J Radiol 19 7 xxxii 3 6

Further experiences with intrathoracic tumors G J HEUER Ann Surg 9 lxxxv 9 [15]

Result of X ray treatment of primary malignant intrathoracic tumors F G CHANDLER and C T POTTER Lancet 19 7 ccviii 506

The technique of resection of the first two ribs by the posteroexternal suprascapular route P MALLT GUY and R DESJACQUE J Bone Joint 192 xxi 193 [15]

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

Dermoid cyst of the urachus J H LONG Surg Clin N Am 9 1 1043

Ventral hernia J F JENNINGS Surg Clin N Am 92 1 909

Epididymic hernia in its relation to intra-abdominal disease D J SULLIVAN and L WATKINS Ann Srg 9 lxxxvi 4 3

Operative procedures in umbilical hernia G EGUR Arch Ital di chir 19 7 viii 1 1

Femoral hernia in children R RUTHERFORD Lancet 9 ccviii 495

Operation in hernia of the infant and young child A MARTIN Med J & Pec 19 7 cxxi 9

Peritonitis in experimental study V C DAVIS Surg Gynec & Obst 19 7 xl 57 [16]

The pleen in peritonitis I HEILMA Arch f path Anat 19 7 cclxi 609

Diaphragmatic peritonitis and its management O PUTMAN J Missouri State M As 19 7 xvi 4 0

A case of peritoneal echinococcus disease R GUYOT and J GUERIN J de méd de Bordeaux 19 7 ci 66

Associated pancreatic and biliary peritonitis and a contribution to the etiology of biliary peritonitis without perforation E BERNARD Deutsche Zt f Chir 92 cci-civ 3 3

Chronic fibrous encapsulated peritonitis L JOSA Zent bl f Chir 19 7 l 1659

Experimental study on the treatment of free purulent peritonitis (colon bacillus peritonitis) I SEELIGER Dtsch f Chir 19 7 cci-cii 2 1

The closure of abdominal incisions H KEITH Brit M J 1927 ii 5 0

Suture of the abdominal wall in one layer after laparotomy DESMAREST Presse méd Par 192 xxxiv 98

A method of suturing the fat abdominal wall A EDWARDS Lancet 19 7 ccviii 4

Gastro Intestinal Tract

Notes on a case of swallowed denture C W BOWLE J Roy Army Med Corps Lond 19 7 xlix 211

The treatment of nervous indigestion W C ALVAREZ J Am M As 19 7 lxxxi 44 [16]

Vomiting in digestive pathology H G MOGNA Polichin Rome 19 7 xxxiv sez p at 143

Acid esterase syndrome due to colon bacilli H MALLIE J de méd de Bordeaux 19 7 civ 6 7

Safety pins in the stomach G BLACKBURN J Am M As 19 7 lxxxix 10 9

The clinical importance of the relation between the connective tissue of the stomach duodenum pancreas liver and spleen R A KESSELLA Med Clin N Am 192 vi 345

Gastric digestion the relation of the hydrogen on concentration on volume and buffer capacity of the gastric contents to a milk test meal R B MILES and A T SHOHL Am J Di Chir 192 xxxiv 4 9

Disturbances of the gastric secretion following gastroptosis Riforma med 19 7 xliii 0

The gastric secretion due to histamine I GALLART MONÉS J VILARDELL and P BABOT Rev m d lc Barcelona 19 7 iv 193

Studies on diverticula of the duodenum and of the syndrome associated with this condition G SANAVINI *Folclicin Rome* 19 7 xxiv sez med 325

Diverticula and duplication of the duodenum with reference to the importance of cholecystitis in the production of symptoms J W J ARMISTE and L A GRAHAM *Surg Gynec & Obst* 19 xlv 57 [21]

The X-ray diagnosis of duodenal lesions H R SEAR *Med J Australia Supp* 19 7 p 24

Postoperative peptic ulcer of the small bowel A I POROV *Arch f klin Chir* 1927 cxlv 62

Perforated ulcers of the duodenum I C BRENNET *Ann Surg* 19 7 lxxvi 393 [21]

Perforated duodenal ulcer in a child 1 years of age gastroduodenal excision recovery G LOTORSCHN *Arch ital di chir* 19 7 xvii 508 [21]

The incidence and treatment of the complications of duodenal ulcer D C BALFOUR *Texas State J M* 9 7 xv 130

Postulcative periduodenitis supramesocolic duodenal stenosis G PECO *Semana m d* 19 7 xxiv 64

Cancer of the perampullary region of the duodenum I COHEN and I COLP *Surg Gynec & Obst* 19 7 xlv 33

Multiple diverticuli of the jejunum J A BERRY *Lancet* 19 7 c viii 405

Terfoatin jejunal ulcer E L FLINSEN *Ann Surg* 19 7 lxxv 145

Postoperative jejunal ulcer in Spain URRUTIA *Arch d med cirug y p cial* 1927 vii 48

Presentation of an operative specimen of a peptic ulcer of the jejunum J OLKIN *Bull et mém Soc nat de chir* 19 7 liii 92

Ileocecal and jejunocecal intussusception in an infant II B LESTIN *Arch J Sug* 1927 liii 62

Ileocecal cyst WOODEN and HOGHTON *Ann Sug* 1927 lxxv 4

Neoplasm of the ileocecal valve W A SHERWOOD *Surg Clin N Am* 19 7 vii 1057 [22]

A case of intussusception J AFCE and A CASSINELLI *Bol inst de clin quir* 19 7 liii 95

Irradiation of the colon utilizing the opaque enema technique of administration D I MYERS *Med J Australia Supp* 9 p

Total colectomy for megacolon BERGARECHE *Arch de med cirug y p cial* 19 7 viii 57

Inflammations of the colon F S HOVL *Med J Australia* 1927 i 426

Chronic ulcerative colitis (acute exacerbation) W B BRINSMADE *Surg Clin N Am* 19 7 ii 817

Surgery of the colon C J DRECK *Illinois M J* 19 7 lii 2

Discus on on colostomy W L MILES W B GABRIEL *Proc Soc Med Lond* 1927 xx 1451 [22]

The varying degree of anemia produced by carcinoma in different parts of the colon W C ALARIZ E S JLD *W C McCARTY and A R ZIMMERMAN Arch Surg* 19 7 x 42

The symptomatology and diagnosis of cancer of the large bowel G V BRINDLEY *Texas State J M* 1927 viii 35 [23]

The interposition of small bowel segments between the distal end of the colon II B STON *Ann Surg* 1927 lxxvi 40 [24]

Symptoms apparently of a colon polyp due to colitis of the cecum and ascending colon D TADDEI *Folclicin Rome* 1927 xxiv 143

Five cases of caecal tumor of postsyphilitic origin M G PARTURIER *Med Ibera* 19 7 xi 57

The appendicular syndrome due to a cavernous lymphoma of the mesocolon C RICCIUTTI *Riforma med* 19 7 xliii 745

The leucocyte count in appendicitis I KORTSCHNER *J Missouri State M Ass* 19 7 xxiv 406

An unusual case of appendicitis in a child T KENNY *Atlantic M J* 19 7 xlv 785

Appendicitis in tuberculosis and tuberculosis of the appendix A PERIRA *Med Ibera* 1927 xi 15

An unusual location for appendicitis inclusion of the distal end of the appendix in the wall and lumen of the cecum and ascending colon I SANNAZZARI *Arch ital di chir* 9 7 xviii 321

Appendicitis from without in a child J SILIOL *Bull et mém Soc nat de chir* 1927 liii 105

Malan appendicitis G BASILE *Folclicin Rome* 1927 cxi 143

The treatment of acute appendicitis in the cantonal hospital of Lausanne M BRUTIN *Rev méd de la Suisse e Rom* 19 7 xlvii 546

Controllable factors affecting the mortality of acute appendicitis J O BOWER and J H CLARK *J Am M Ass* 1927 lxxv 844

Operative treatment of obstruction due to a growth in the descending colon J SHOFVALLER *Surg Gynec & Obst* 1927 xlv 359

The sigmoidoscope as an aid to diagnosis in chronic dysentery and in the rectum J B HANCE *Indian M Gaz* 19 7 liii 406

Irradiation of the rectum J M IVNCH *J Am M Ass* 1927 lxxv 150 [25]

A clinic for diseases of the rectum A W M MARINO *Surg Clin N Am* 1927 i 965

Technical studies in proctology I V GORSCH *Med J & Rec* 1927 cxxvi 339

Ulcerative tuberculosis rectitis and lambliasis J VARELL *Rev méd de la ecologia* 1927 iv 187

Carcinomatous degeneration of rectal adenomatous resection of 7 cases F C YEOWANS *J Am M Ass* 1927 lxxv 852

The treatment of carcinoma of the rectum by irradiation II H BOWING *Padiology* 1927 ix 179 [26]

The principles underlying the surgery of carcinoma of the rectum D B PREIFFER *Ann Surg* 19 7 lxxvi 374

Mekel's diverticulum complicating resection of the rectum W HONENBALKEN *Zentralbl f Chir* 19 7 liv 1511

Anorectal diseases A B GRAHAM *J Am M Ass* 19 7 lxxv 79

Hæmorrhoids some remarks on their treatment A CROOKALL *Northwest Med* 19 7 xxvi 453

Gall anism in the treatment of internal hæmorrhoid with the report of a case A L KINCHELOE *Kentucky M J* 1927 xvi 514

Electrocoagulation in the treatment of hæmorrhoids E LARRU *Med Ibera* 1927 xi 48

Surgical dathermy in hæmorrhoids J D MORGAN *Clin Med & Surg* 1927 xxiv 680

Hæmorrhoidectomy by means of the high frequency current W BERMAN *Clin Med & Surg* 19 7 xxiv 660

Liver Gall Bladder Pancreas and Spleen

Clinical and pathological analogy between the biliary and urinary tracts E BELER *Arch ital di chir* 19 7 xviii 378

Cooperation between internist and surgeon in handling biliary tract conditions J A LICHTY and C W WEBB *Clifton M Bull Clifton Springs N York* 1927 xiii 9

The rôle of the spleen and in particular of the splenoblastic endothelial tissue in the chromogenic function of the liver A FIESSINGER H R OLIVIER and R CASTÉRAN *Revue méd. Par* 1927 xxxv 1705

Clinical forms of mycosic splenomegalies P EMILE WEIL R GRÉGOIRE P CHEVALIER and FLANDRIN *Revue méd. Par* 1927 xxxv 897

Malarial splenomegaly F FERRARI *Rev. de chir. Par* 92 xvi 408

Iodine in the treatment of splenomegalies A NANTA *Presse méd. Par* 19 7 xxi 867

The operative indications in primary chronic splenomegalies R GRÉGOIRE and P EMILE WEIL *Bull. et m. m. Soc. nat. de chir.* 19 7 liii 935 *Presse méd. Par* 92 xxxv 937

Splenectomies in certain splenomegalies LECHE *Bull. et m. m. Soc. nat. de chir.* 19 7 liii 936

Cysts of the spleen RICHER *Lyon chir.* 19 7 xxi 45

Siderotic splenogranulomatosis C ANTONUCCI *Arch. ital. di chir.* 19 7 xviii 393

Primary lymphosarcoma of the spleen—report of a case W A SHERWOOD and A L SMITH *Surg. Clin. N. Am.* 19 7 vii 1069

Surgical diseases of the spleen W J MAYO *Arch. ital. di chir.* 92 xviii 384

Miscellaneous

Viceroposis in relation to posture J P WHITE *Med. J. Australia Supp.* 1927 p 133

The urachus and umbilical fistula R C BEGG *Surg. Gynec. & Obst.* 19 7 xi 165 [31]

Foreign bodies left in the abdomen KAUSCH *Zentralbl. f. Chir.* 1927 liv 800

Discharge of a catheter through the abdominal wall H L BORTONLEY *Med. J. & Rec.* 1927 cxxvi 368

The diazine of subacute conditions of the abdomen P L GILBERT *P. act. oner.* 9 cxix 14

The differential diagnosis of right sided abdominal pain U MAES *Am. J. Obst. & Gynec.* 19 7 xiv 364

The clinical importance of simultaneous anterior and oblique lateral roentgenograms in the differential diagnosis of lesions of the right upper quadrant of the abdomen W E COURTS and E GREENE *Bol. Soc. de ciru. de Chile* 1927 v 17

Diaphragmatic hernia A R SHREFFLER *Med. Clin. N. Am.* 1927 xi 561

Case of diaphragmatic hernia G MARANON and R RAGUZ *Clin. 3. lab.* 1927 xiii 5

Diaphragmatic hernia in a newborn infant R M TYSON *Arch. Pediat.* 10 7 xlv 557

The thoracopneumal operation for hernia of the diaphragm P L TRIEDALE *Ann. Surg.* 1927 lxxxvi 38 [31]

Subphrenic abscess I F I EERY *Northwest Med.* 19 xvi 444

Multiple intraperitoneal conditions LA ROQUE *Ann. Surg.* 10 7 lxxxv 4

Pathological symptoms of the right side of the abdomen (appendicitis pyloric and duodenal ulcer cholecystitis) S SOLIERI *Atti. a. d. Grenzgeb. d. Med. u. Chir.* 1927 xl 359

Gumma simulating an intra-abdominal tumor STEIN *Hen. et. Ann. Surg.* 10 7 lxxxvi 41

Resection of cystic embryoma L OMBREDANNE *Bol. Soc. de ciru. de Chile* 19 7 xlv 136

Treatment of echinococcus cysts without drainage and the application of this method to large retroperitoneal para-aortic cysts O MARGARICI *Arch. ital. di chir.* 1927 viii 44

Chylous ascites and hemothorax J C LATER *Med. Clin. N. Am.* 9 7 xi 40

Abdominal surgery reducing the risk M BORNSTEIN and D V ELCONEN *Wisconsin M. J.* 927 xxvi 455

Twilight sleep in abdominal surgery W STEINLER *Deutsche Ztsch. f. Chir.* 10 7 ciii-cv 287

Section of the ramus communicans in severe painful syndromes of the limbs R FERICHE *Arch. ital. di chir.* 19 7 xiii 6

Resection of the splanchnic nerves G PIERI *Ann. ital. di chir.* 9 7 vi 8

Indications for abdominal drainage GOULLIQUO *Lyon chir.* 19 7 xxi 47

Short hospital course following common abdominal operations G ROBERTSON *Practitioner* 1927 cxi 10

A remarkable case of apparent infection by bacillus pyocyaneus also a contribution on postoperative intestinal palsy H REICHENMILLER *Zentralbl. f. Gynaec.* 9 7 li 173

GYNECOLOGY

Uterus

A case of enormous uterine prolapse BOUKHAIB and R G CASAL *Med. Ibera* 19 7 xi 5

Operative treatment of retroversion of the uterus M K SMITH *Am. J. Surg.* 1927 iii 55

Uterus duplex uncollis W T DANNEBERGER *Am. J. Obst. & Gynec.* 19 7 xiv 176

Experimental study of the excretory functions of the mucous membrane of the uterus Part I On the excretion of pigment H SAKUMA *Jap. J. Obst. & Gynec.* 1927 v 43

The anatomy of the menstruating uterine mucosa H MEYER RUEGG *Zentralbl. f. Gynaec.* 19 7 li 13

Dysmenorrhea from uterine malformation GOULLIQUO *Lyon chir.* 19 7 xxi 454

Some forms of postmenopausal non-carcinomatous metrorrhagia I DAVANZO *Clin. obstet.* 1927 xxix 409

Uterine hemorrhage and severe nervous diseases W BRANDIS *Med. Klin.* 19 7 xxii 690

Acquired atresia of the uterine cervix E BRISOP *Surg. Clin. N. Am.* 1927 vii 811

Agglutination of the uterine cervix PAVLOVSKY *Bol. Soc. de obst. y gynec. de Buenos Aires* 1927 vi 148

The cervix uteri as a source of infection E HOENIG *Med. J. & Rec.* 927 cxxvi 30

Case of cervicovaginal fistula self-induced H SCHROEDER *Monatsschr. f. Geburtsh. u. Gynaec.* 1927 lxxvi 74

The technique of cautery amputation of the cervix H P KATZ *Surg. Gynec. & Obst.* 19 7 xlv 387

Comparative results of the cautery versus the Stürmordorfer operation in certain lesions of the cervix D I HIRSCH *New Orleans M. & S. J.* 9 7 lxxx 167

Tracheloplasty versus tracheloplastering M O MAGID *Am. J. Obst. & Gynec.* 9 7 xiv 171

The influence of various kinds of bacillus toxin on the uterus S TAKAKAMA *Jap. J. Obst. & Gynec.* 1927 x 5

Tuberculosis of the uterus and adnexa GOULLIQUO *Bull. Soc. d. obst. et de gynec. de Par.* 1927 x i 461

- The prevention of menstrual troubles A F S CLOW
Brit M J 1927 ii 446 [32]
- Some problems of the menstrual function with observations on the relation of the graafian follicle and corpus luteum to pathological uterine hemorrhage B WHITEHOUSE Edinburgh M J 1927 xxxiv Edinburgh Obst Soc 139
- Menstruation of Japanese school girl K SHI Jap J Obst & Gynec 1927 v 42
- A case of amenorrhea until the age of 9 years due to absence of communication between the uterus and vagina O I BOTTARO Rev argent de obst y gynec 1927 vi 75
- The clinical aspects and the practical pathological anatomy of metrorrhagic clots M LITULIE Pes e med Iar 19 xxxv 1042
- Periodicity of ex desire II Married women K B DAVIS Am J Obst & Gynec 1927 xiv 345
- The nervous relations between the genitalia and the breast J LEON Semana med 1927 xxiv 5
- The comparative incidence of pelvic pathology II C SRAVER California & West Med 1927 xx 367
- The meaning of backache in gynecology A STEIN Am J Surg 1927 iii 59
- Alteations of the uterine ovarian apparatus in experimental scurvy L PUCCIONI Riv ital d gynec 1927 v 3
- The eurette and curettement R I BROWLEY Med J & Rec 1927 xxxvi 35
- Sterility in women C COGHILLAN Med J Australia 1927 vi 328
- Sterility of uterine origin diagnosis and treatment F CANTILLO Gynec et obst 1927 vi 8 [33]
- Stenosis of tubal origin diagnosis and treatment F DOTY Gynec et obst 1927 vii 76 [33]
- A case of postpubertal functional impotence cured by diathermy BOUQUET and NOVEL Bull Soc d obst et de gynec de Par 1927 xi 44
- Diagnosis and treatment of gonorrhea in the female A W SANDERS and I WEAVER Illinois M J 1927 li 21
- Vaccinotherapy in gynecological affections I BLACKERS Bruxelles med 1927 vii 1250
- The surgical treatment of genital tuberculosis in the female F F CIARLO Semana med 1927 xxiv 49
- Peritoneal thrombosis A ALTHADE and G DI VOLA Bol Soc de obst y gynec de Buenos Aires 1927 vi 85
- A case of pelvic myxoma A GOTTCH J Obst & Gynec Brit Imp 1927 xxxiv 528
- The significance in surgery of heterotopic epithelial growth with the structure of uterine mucosa M DIETELIN Zent all f Chir 1927 lix 1346
- Sarcoma of the retrovaginal septum O A GORDON Jr Am J Obst & Gynec 1927 xiv 38
- The indications and method of treatment in the gynecological clinic of Monaco F CLAUSER Clin obst 1927 xxxv 38
- Endoethermy in gynecology II A KELLY J Am M 1927 ix 19
- Radium treatment in gynecology FENWICK N Zealand M J 1927 xxxv 214
- A report of 57 gynecological cases treated with radium alone or combined with surgery W S SMITH Surg Clin N Am 1927 vi 681
- Postoperative complications in gynecology VITAL Azv Med Ibera 1927 vi 105

OBSTETRICS

Pregnancy and Its Complications

- Prenatal hygiene ARNALDO DE MORAES Folha med 1927 viii 189
- A new case of Naegle's pelvis D IRAEVA and C D MEDINA Bol Soc de obst y gynec de Buenos Aires 1927 vi 9
- Liver function in pregnancy I A SIEGEL Am J Obst & Gynec 1927 xiv 300 [35]
- Skene's ducts during pregnancy J B BLERSTINE and T L MONTGOMERY Urol & Cutan Rev 1927 xxxv 5
- Bronchopneumonia and pregnancy J A GABASTOL Rev argent de obst y gynec 1927 xi 50
- Grippe and pregnancy N GUERDJIKOFF Rev med de la Suisse Rom 1927 xlviii 535
- The problems of pregnancy associated with heart disease CALANDRE and LOQUEZ Pro de la clin Madrid 1927 xv 590
- The pathogenesis of cardiac accidents in pregnancy J HARTSMAN Gynec tolist 1927 xvi 31
- The anemia of pregnancy a study of 43 cases S A McSWINEY Indian M Gaz 1927 lvi 487
- The anemia of pregnancy M I BALFOUR Indian M Gaz 1927 lvi 49
- Positive urinary Fehling's tests in connection with obstetrical cases C F GAUPIN Kentucky M J 1927 xv 6
- Diabetes pregnancy and insulin I D APRILE Clin o tet 1927 xv 353
- Diabetes mellitus and pregnancy H J STANDER and C H FLECKHAM Am J Obst & Gynec 1927 xiv 33
- The blood sugar in the glycosuria of diabetes and pregnant women K IADLER Presse med Iar 1927 xxxv 109
- A retroverted gravid uterus with intestinal obstruction and rupture of the bladder F C IRIDITAU Brit M J 1927 vi 494
- A case of partial retroflexion of the gravid uterus between the fourth and fifth month GIRARDIN Bull Soc d obst et de gynec de Par 1927 xv 508
- Fibromyomata and pregnancy a study of 250 cases I A PIERSON Am J Obst & Gynec 1927 xiv 333 [35]
- A case of fibroma complicating pregnancy A GUERTEL and M ISAAC Semana med 1927 xxiv 54
- Fibroma and pregnancy of 3 months ineffectual attempt at myomectomy hysterectomy L CRIMMOLD Bull Soc d obst et de gynec de Par 1927 xvi 493
- Low caesarean section and myomectomy for fibromyoma A I PAMOS Bol Soc de obst y gynec de Buenos Aires 1927 vi 9
- Torsion of the uterine adnexa in pregnancy BIANCHI Arch d obst et gynec 1927 xxxiv 97
- Spontaneous rupture into the peritoneal cavity of an ovarian cyst in a woman 5 months pregnant PÉRY MANGÉ and BOURSILLY Bull Soc d obst et de gynec de Par 1927 xvi 454
- Appendicitis complicating pregnancy A P HEINECK Illinois M J 1927 li 242
- The crum diagnosis of syphilis in pregnancy ISHOCK Arch de med chirug especial 1927 viii 6
- Syphilitic chancre of the cervix in pregnancy GUYOT (CERVA) A DUBREUIL Bull Soc d obst et de gynec de Par 1927 xvi 45

The abutment of caesarean section H JELIETT Brit M J 19 7 11 451

The causation and prevention of tears of the parturient outlet L DORSIN Med J & Rec 19 7 cxxv 363

The peripheral circulation shortly after labor W HAUPT Zentralbl f Gynaek 1927 11 595

Puerperium and Its Complications

The disadantages of the prolonged period of postpartum rest in bed H J EPSTEIN and A J FLEISCHER Am J Obst & Gynec 19 7 xiv 360

The elimination of creatinin and uric acid in the puerperium and its relation to uterine involution and mammary function S MARTINES and G DE LAURETIS Riv Ital di ginec 19 7 11 287

A case of puerperal uterine inversion J COLLEDE CARRERA Bull Soc d obst et de gynec de Lar 19 7 xvi 48

Hæmolytic icterus in lactating patients S BARBERI Chi ostet 1927 xix 431

Pulmonary embolism following childbirth A W BOWMAN Brit M J 19 7 11 44

Puerperal and postpartum sepsis J C WINDEYER Med J Australia 19 7 11 46

A case of septicæmia due to the pneumobacillus of Friedlaender and staphylococcus aureus developing after labor L RIBADEAU DUMAS and CHABRON Bull et mcn Soc med d hôp de Par 1927 xliii 323

Physometra associated with bacillus welchii septicæmia J G SLEEMAN Med J Australia 19 7 11 367

Chemotherapy of puerperal septicæmia a clinical study FERRERAS and MAUROLAGOITIA Proa de la clin Madrid 19 7 v 69

Surgical therapeutics in puerperal processes W LATZKO Bol Soc d obst y ginec de Buenos Aires 19 7 vi 135

Newborn

A study of behavior in the newborn L TAYLER JONES Am J M Sc 1927 clxxi 357

Two cases of congenital cleidocranial dysostosis BRIN DEAU Bruxelles méd 1927 vii 1225

Intracranial hemorrhage in the newborn H YAGI Jap J Obst & Gynec 19 7 x 30

Fatal pulmonary hemorrhage in an infant ALLEN N Zealand M J 1927 xxvii 28

Cardiac malformations in the newborn LÉVY MORLOT and FRANÇOIS Bull Soc d obst et de gynec de Pa 19 7 xvi 48

Præsentation of a child suffering from spina bifida JOB Bull Soc d obst et de gynec de Lar 19 7 xvi 491

Miscellaneous

Obstetrics W D PORTER J Med Cincinnati 1927 viii 334

The statistics of obstetrics P B BLAND Med Times 19 7 iv 50

Obstetrics and gynecology in the days of the patriarchs A B GREEN ARMYTAGE J Obst & Gynec Brit Emp 19 7 xxi 536

Obstetrics in China in the thirteenth century I MAXWELL J Obst & Gynec Brit Emp 19 7 xiv 451

Some of the old Chinese drugs used in obstetrical practice B I READ J Obst & Gynec Brit Emp 19 7 xiv 459

Infancy and maternity work in the South O DOWLING South M J 19 7 ix 738

How should the maternity be isolated? J B DE LEE Mod Hosp 19 7 xxix 65

Ten obstetrical commandments L A WILSON South M & S 19 7 LXXXIX 1010

Blood pressure in obstetrics G R O BORN South M J 1927 xxi 710

The responsibility of the obstetrical teacher in relation to maternal mortality and morbidity B P WATSON Am J Obst & Gynec 19 7 xiv 277 [36]

A fetal head in the uterus for 4 years H COHEN Med J & Rec 19 7 cxx 369

GENITO-URINARY SURGERY

Adrenal kidney and Ureter

The effect of the removal of the suprarenal capsule upon the blood vessel and the principal organic systems F GUCCIONE Polichin Rome 1927 xxiv sez med 431

Enlargement of the adrenal cortex in experimental ræmia L M MACHAY and L L MACHAY J Exper Med 19 7 xiv 49

Addison's disease suprarenalopathies sclerosis of the gland of intern secretion clinical reports and a review of the literature E G WAKEFIELD and E L SMITH Am J M Sc 19 7 clxxi 343

Suprarenal carcinoma with pube tas præcox in a boy 3 year of age M B GORDON and E J BROWDER La doctrinolo 19 7 xi 6

The so called idiopathic dilatation of the upper urinary passages F NICKLER Urol & Cutan Rev 1927 xx 1 583

Spontaneous perirenal hematoma and aneurysm of the renal artery K A MEYER and H A SINGER Surg Gynec & Obst 1927 xlv 300

An unusual case of foreign body in the kidney L BRATTSTROM Acta chirurg Scand 19 7 lvi 56

The motility of the renal pelvis studied in the freshly excised kidney LEGGIE ILL and PALAZZOLI J d urol méd et chir 1927 xxi 61 [38]

Renal efficiency with special reference to various efficiency tests S D KJIND Med J Australia Supp 1927 p 201

The phenolsulphonphthalein test MARION J d urol méd et chir 19 7 xxiv 57

Renal function and renal disease A A EPSTEIN Ohio State M J 1927 xxvii 731

Notes on certain type of renal pathology N P RATH J N and N M ALTER Surg Clin N Am 1927 11 1033

A normally placed right kidney possessing 2 pelves and 2 ureters opening separately into the bladder the center part of the kidney between the pelves being occupied by a

Grawitz tumor W S FERRIN Pro Roy Soc Med Lond 19 7 xt 1807 [38]

An ectopic kidney with a triple ureter removed from a man aged 41 years W S FERRIN Proc Roy Soc Med Lond 19 7 xt 1806 [38]

Concutal hydroureter G E NELIGAN Proc Roy Soc Med Lond 1927 xt 806

Contribution to the knowledge of the etiology of hydroureter J J HELLSTROM Acta chirurg Scand 19 7 lvi 167 [39]

Small painful hydroureteric enervation of the kidney and nephropathy late results MARTIN LAYAL and PAS

TEAU J d urol méd et chir 1927 xxiv 77 [39]

A stenosing tuberculoma of the urethra with secondary epithelial metaplasia D GIORDANO *Piforma med* 19 7 viii 61

Phimosis and dysuria in infancy I AMMONI *Arch dermatol* 19 7 viii 11
The status of circumcision as a surgical procedure A J C HAMILTON and D S MIDDLETON *Lancet* 19 ccviii 639

Genital Organs

Large true prostatic calculi A CRANUZZI *Arch ital di chir* 1927 xviii 49

Two cases of prostatic hypertrophy cured by transurethral prostatectomy in stages I DE NEMESYER *Arch ital di chir* 1927 xviii 659

The value of biopsy in prostatic tumors A ASTRALDI *Rev esp especialidades* 19 11 32

Complete retention of the urine from a small adenoma of the prostate with some considerations on the mechanism of retention A I ORTIZ and J J GAZZOLLO *Rev med Lat Am* 92 vii 1550

The circulation in prostatic surgery G G SMITH *J Am M A S* 19 1 xxix 923

Prostatectomy in the treatment of urinary retention in the case of acute gonorrhoeal prostatitis A G CASARIEGO *J di urol m d et chi* 9 7 vii 519 [42]

The indication and execution of prostatectomy H WILDBOLZ *Proc Roy Soc Med Lond* 9 xx 1908 [42]

Synca of prostatectomy in young men BLANCHOT *J de m d de Bordeaux* 19 civ 584

Prostatectomy—some remarks about the indication technique and results A TROELL *Acta chirurg Scand* 19 7 lxi 133 [44]

Vicious scarring following suprapubic prostatectomy E PAPIR *Arch di mal d reins et d organe genitaur urinaires* 19 11 553

Toion of the permitt cord and spontaneous erection A A VASSILIAN *Indian M Gaz* 1927 lviii 52

Spermatic cyst R BRUGLIO *Arch ital di chir* 19 7 viii 488

The relation of funiculitis to hydrocele in Egypt A B ISRAHIM *Lancet* 19 ccviii 7 [44]

Some tumors of the permitt cord Z I OMITI *Arch ital di urol* 19 11 531

The interstitial cells of Leydig in the hermaphrodite pig A H DAVIS and G T PICK *Endocrinology* 19 1 33

Sarcoma of intra abdominal testicle W A SHERWOOD *Surg Clin N Am* 19 7 vii 109

Further studies on testicular grafting W F BOUKALIK and R G HOSKINS *Endocrinology* 192 vi 335

The effects of testicular substance implantations on glycosuria I L STANLEY *Endocrinology* 1927 vi 305

Multiple bromata of the tunica vaginalis P STRICKLER and A FRANK *J di urol m d et chi* 19 7 xiv 53 [44]

Backache due to seminal vesiculitis and prostatitis M B WELSON *California & West Med* 19 7 xx 11 346 [45]

An ejaculatory duct catheter and a plunging valve B B NICHOLSON *J Urol* 19 7 xiii 35

The histology of phlebectatic arthrocele P SANNAZ *Zentrblnchiln Rome* 927 xxiv cz chir 38

The treatment of genital tuberculosis in the male K M WALKER *Lancet* 19 ccviii 16 [45]

Miscellaneous

Stereoscopy in urology A E Goldstein *South M J* 19 7 x 73

Notes on chyluria with the report of a case W F McCLANNA *Surg Clin N Am* 192 vii 993

Calculus hematuria M MONTANARI *Policlin Rome* 9 7 xxi sez prat 101

The latent gonococcus and permoculture P BARDEL *Lyon J di urol m d et chi* 19 7 xiv 36 [45]

The employment of polar body development strains of the gonococcus in the treatment of gonococcal infection I C LAMBIN and L DIMOND *Brit M J* 19 7 11 302 [45]

Meurochrome glucose solution in the treatment of gonorrhoeal infections W M CORPBRIDGE *South M & S* 9 7 lxxvii 66

Purulent tetraenoic septicemia in a patient with a urinary condition CAVEY *J di urol med et hi* 927 xxiv 72

Surgery special and general with reference to urology J S ROSENTHAL *Virginia M Month* 19 7 liv 394

Anaesthesia in urological surgery M F BORSFORD E RICHETT and C M J HANSON *California & West Med* 1927 xxvii 3 [46]

Local anaesthesia in urological operations I ICHTEN *Stern Urol & Cutan Lev* 92 xx 1 589

Ethylene anaesthesia in urology as compared with nitrous oxide anaesthesia A MESSINA *Arch ital di urol* 927 11 563

SURGERY OF THE BONES, JOINTS MUSCLES TENDONS

Conditions of the Bones Joints Muscles Tendons Etc

Minors injuries reparable disability F I HAMMOND *Ill noi M J* 19 7 li 237

Manpower—porcupine J R GARDNER *Inte nat J Med & Surg* 1927 1 35

Circulatory factors influencing normal osteogenesis J J MORTON and S J STANLEY *Ann Surg* 19 7 lxxv 430

Contribution on bone regeneration J BLESCH *Arch klin Chir* 19 7 cxvi 1 586

Regeneration of the bones during the administration of radioactive iodine F ALIPODI *Racogn internaz di clin e terap* 92 viii 455

Bone development in diabetic children a roentgen study L B MORRISON and I K BOGGS *Am J M Sc* 92 clxxv 313

Some bone and joint conditions of asomatism and their treatment R LERICHE *Bull et mém Soc nat de chir* 1927 li 102

Diffuse osteosclerosis the osteosclerotic anamias J J MOZER *Rev m d de la Suisse Rom* 19 7 xliii 802

Rickets an unusual roentgenographic manifestation I LEWIS *Am J Dis Child* 19 7 xx 11 388

Osteomalacia U ARCANGELI *Arch ital di chir* 1927 xiii

The roentgenographic diagnosis of some forms of bone syphilis S SATANOWSKY *Semana med* 1927 xxvi 123

Fibrous osteitis PÉREZ DUENO *1927 de la clin Madrid* 19 7 vi 604

Osteitis deformans E J GRACE *Surg Clin N Am* 19 7 vii 863

The mechanism and pathogenesis of acute osteomyelitis A O WILKINS *Am J Surg* 19 7 111 281

Petromalleolar tuberculo is cured by tuberculin administered according to Loch's method I CARSWILL Brit M J 19 7 iii 493

Osteosarcoma of the tibia treated by radiotherapy TAVERNIER PIERRE and BLUFFE Lyon chir 19 xvii 411

Two cases of congenital amputation of the foot II I ROCHER and I MASSÉ Rev d'orthop 19 xvii 39
Reflex flat foot P GALEAZZI Arch ital d chir 19 xviii 69

A family of familial claw foot A B JOYE Med Clin N Am 19 vi 35

Surgery of the Bones Joints Muscles Tendons Etc

The thirty third report of progress in orthopedic surgery I D WILSON I T BROWN II C LOW M N SMITH I ETERSEN and other Arch Surg 19 7 vi 478

Progress in orthopedic surgery R B COFFIELD J Med Cincinnati 19 viii 339

The treatment of cold abscesses following tuberculous osteopenostitis I CAPELLINI Bolchin Pome 9 7 xvii 42 chir 0

The results of the Poberston lavage procedure in non tuberculous osteo dystrophies DELFOR DEL VALLE and I E DONOVAN Rev méd Lat Am 19 ii 50

Bone grafts LUNEO Bull et mém Soc nat de chir 19 liii 934

Some principles of treatment of injuries to joints II E MOCK Internat J Med & Surg 9 vi 349

A new method of treating tuberculous osteoarthritis C I LAVALLE Semm arch 19 xvii 187

The Poberston lavage method in tuberculous osteoarthritis R TAMINI B N CALZOGNO P MORENO and A GUTIERREZ Semm arch 19 xvii 185

The treatment of palsy by sympathetic ramiscation N D POXIE Proc Roy Soc Med Lond 19 7 vi 99

Late result of intervention for the scapula NOVE JESSERAND Lyon chir 192 xvii 450

Pseudarthrosis of the humerus with a cyst under made from a femoral stump; resection and symphysectomy of the humerus II CALDIER Bull et mém Soc nat de chir 192 liii 99

Ankylosis of the left elbow and retro-lunar dislocation of the right carpus due to tumour arthroplasty of the elbow and resection of the humerus J VILIS and C E OTTO LENCHI Rev méd Lat Am 192 xii 1720

Excision of the middle third of the radius treated with a bone graft IUTRE Lyon chir 9 7 xvii 413

White tumor of the wrist partial resection recovery L SORFEL Bull et mém Soc nat de chir 9 7 liii 95

The importance of the junctura tendinum in lesions of the extensor tendons of the humerus M IRAZI Arch ital d chir 9 7 xvi 597 [48]

Excision of a bullet lateral to the odontoid process A B K WATKINS Med J Australia 19 7 ii 334

Extra articular arthrodesis for tuberculous of the vertebral column the hip and the sacro iliac articulation I H ALBER Arch ital d chir 9 7 xvii 618

Lamnectomy E W IYERSON J Am M Ass 1927 lxxvii 687 [49]

Arthrodesis of the hip by the extra articular method BLERARD and GUILLEMINET Lyon chir 19 7 xvii 44

Leg trochanter pads require operative removal C E CROLETTE Med J Australia 1927 ii 480

Control of the femoral artery by Crile's clamp in thigh amputation C I CRILETT Med J Australia 1927 ii 480

Therapeutic injection of air in traumatic hemarthrosis and hydro hemarthrosis of the knee I CACCIA Arch ital d chir 19 xvii 686

Concussion of the knee treated with an osteoplastic graft according to Delaguerre's method G MOUTIER Rev d'orthop 19 7 xvii 339

The general technique of amputations by Cacci's method and its advantages A PELLEGRINI Chir d organi di movimento 1927 vi 48

Late result of atypical tarsectomies in diffuse tuberculois of the posterior tarsus in children G NOVE JOSSERAND and I POUZET Lyon chir 19 7 xvii 19 [49]

Astragalectomy in a case of pes equinovarus due to muscular contraction late result D B BRIAN Semm arch 19 7 xvii 98

The treatment of pes cavus S CACCIA Chir d organi di movimento 1927 vi 483

A modified Betz apparatus for continued extension BÉRAUD Lyon chir 19 7 xvii 493

Physic the apy and its relation to orthopedic surgery A H FREIBERG J Am M Ass 1927 lxxvii 782 [49]

Fractures and Dislocations

The general treatment of fractures C E HYNDMAN J Missouri State M As 1927 xvii 414

Some general principles in the treatment of fractures based on the analysis of 459 fractures treated by us at the Newell Clinic from January 1920 to December 31 1926 E D NEWELL Internat J Med & Surg 1927 vi 378

Open reduction in the treatment of fractures J B GIVEN JR Surg Clin N Am 1927 vii 849

The importance of the penostemum in the reduction of fractures H KOCIT Arch f Klin Chir 19 7 xvii 425

A new metallic substance for osteosynthesis T GIORI Semm arch 19 7 xvii 393

The calcium and phosphorus content of the blood in fractures G V RUDN Med J Australia 1927 ii 398

Pseudarthrosis and delayed consolidation H BRUNS Schweiz med Wchnsch 1927 liii 540

A new method of treating pseudarthroses KLEIN SCHMIDT 51 Tag d deutsch Ges f Chir Berlin 1927 [49]

Dislocation of the shoulder joint with no history of injury J F MACKENZIE Med J Australia 1927 ii 369

Habituall dislocation of the shoulder W B CARRELL J Am M Ass 1927 lxxvii 948

Recurrent dislocation of the shoulder treated by capsulorrhaphy and transplantation of the deltoid H MILCH Am J Surg 9 7 iii 293

The treatment of fractures of the clavicle V KREIS INGER Rev de chir Par 19 7 xvi 396

The non-operative treatment of fractures of the upper extremity I D DICKSON Minnesota Med 1927 x 533

Luxation of the elbow in a man of 22 years rupture of the humeral artery and vein Volkmann's syndrome JEANNEY and VIELLE J de méd de Bordeaux 1927 ci 52

Osteosynthesis with screws in severe fractures of the olecranon C I BIANCHIETTI Arch ital d chir 1927 xvii 631

Fractures of the forearm F P DUENO Clin y lab 1927 viii 4

Fracture of the ulna in the upper third and luxation of the radius intervention C DUJARIER Bull et mém Soc nat de chir 19 7 liii 950

Epiphyseal separation of the lower end of the radius after development of the ulna DELFOR DEL VALLE and R E DONOVAN Rev méd Lat Am 1927 xii 1698

The spleen as a regulatory organ of the number of circulating red and white blood cells G VIALI Policlin Rome 19 7 xxiv sez prat 1063

The rhythmic range of the white blood cell in human pathological leucopenic and leucocytic states with a study of 3 human bone marrows C A DOVY and C ZERRAS J Exper Med 1927 xlii 511

The leucocyte count in acute surgical conditions M I NEAL and D A ROBYNS J Missouri State M A 1927 xxiv 397

Trauma in the genesis and course of leukaemia and other haemopathies S DIEZ Policlin Rome 1927 xxvi sez med 401

The blood sedimentation test in normal men and women E M GREISHHEIMER Am J M Sc 9 clix 338

Red cell sedimentation in Addison's disease T BAYLIS and A MOYA Med Ibera 1927 xi 145

Colloidal hydrated oxide of iron by the intravenous route in the treatment of secondary anaemia of the surgical form E POLIVCO Policlin Rome 1927 xxvi sez prat 955

Anaemia in children with pleomegaly and peculiar changes in the bone report of cases T B COOLEY F R WITWER and L IEF Am J D Child 19 7 xxiv 34

Pernicious anaemia D I MACH J Am M A 1927 lxxix 753

Pernicious anaemia T I RIDGE J Missouri State M A 1927 xvi 40

A case of pernicious anaemia with pronounced neurological symptoms with remarks on certain bacteriological and serological features of the disease G O BROUD Med Clin N Am 1927 xi 439

Some observations on the treatment of pernicious anaemia A I MURPHY J Missouri State M A 1927 xvi 408

Vitamin rich in liver in the treatment of pernicious anaemia G R MINOT and W P MURPHY J Am M A 1927 lxxix 9

The treatment of pernicious anaemia with a high caloric diet rich in vitamin K K KOESELER and S MAURER J Am M A 1927 lxxix 69

The control or cure of pernicious anaemia by the Minot Murphy liver diet S HARRIS New Orleans M & S J 19 1927 0

Diet in the treatment of pernicious anaemia A Sachs Nebraska State M J 1927 vi 333

Bant's disease 4 years after operation J Douglas Ann Surg 1927 lxxv 439

Blood transfusion and unreciprocated priority J F VILLARREAL Semana Méd 1927 xxiv 121

Blood transfusion and the Mos test G HROMADA Arch Ital di med 1927 xvii 758

Blood clots in tuberculous T RAPIER O M MARIE and J N HOKAN Arch Int Med 1927 xl 328

Technique and indications of blood transfusion H J W M KENTHALLER G C COCHRAN JR and D D DAVIS Surg Clin N Am 1927 viii 1011

Discussion on sodium citrate and blood transfusion as haemostatics Med Ibera 1927 xi 70

Condications on the use of blood transfusion in surgical infections D DEL VALLE and A VODICE Semana Méd 1927 xxiv 6

Transfusion in childhood J B SIDBURY J Am M A 1927 lxxix 9

Lymph Vessels and Glands

Adenoid and tuberculous adenopathy their etiopathogenesis Rev Méd Lat Am 1927 x 1604

Poentgen ray treatment of tuberculous cervical lymph glands a study of 4 patients treated by small doses of filtered oentgen ray with follow up results J M HANFORD Arch Surg 1927 x 377

Lymphatic oedema of the forearm lymphangioplasty H S STRICK Med J Australia 1927 ii 68

A case of malignant lymphadenosis with some remarks on leukæmic diseases in general T V DICKINSON and H L WOOD Lancet 1927 ccviii 489

SURGICAL TECHNIQUE

Operative Surgery and Technique Postoperative Treatment

Human factors in clinic management a study made in the surgical and fracture clinics of the outpatient department of the Presbyterian Hospital M K TAYLOR and D C BULL Arch Surg 1927 vi 443

The pre-operative administration of digitalis with the report of an illustrative case J P MANNARD JR Surg Clin N Am 1927 viii 969

The problems of urgent surgery FERRE Arch de med chirurg especial 1927 viii 29

Some problems in reconstructive surgery M B VASARI Re Méd de Barcelona 1927 iv 18

Cutaneous plastics with the aid of the limbs G PIERI Arch Ital di chir 1927 xviii 607

The transplantation of free autoplasmic grafts of fascia and aponeurosis according to the method of Kirschner R GOEBEL Arch f klin Chir 1927 c lvi 46

Cicatrical contracture of the axilla and elbow following a burn treated by plastic repair of the elbow with reconstruction of the axilla H MILNER Am J Surg 1927 iii 94

The method of action and the indications for Mikulicz drainage VILLARD Lyon chir 1927 xxi 430

Percutaneous of the heart by intracardiac injections C VALENTI Policlin Rome 1927 xxiv sez p at 99

Intracardiac injections of adrenalin (3 cases) ROUET Bull Soc d obst et gynec de Par 1927 xvi 475

The urea and uric acid content in postoperative cases D DEL VALLE and C RECHNEWSKI Semana Méd 1927 xxv 213

Surgical acidosis VILLALOBOS ROLDAN Prog de la clin Madrid 1927 vi 600

A case of severe postoperative acidosis cured by insulin DE SULA and VILLALOBOS ROLDAN Arch de med chirug especial 1927 viii 85

Postoperative hypoglycæmia I I OSHAY and D BOYD Arch Surg 1927 vi 397

The treatment of intractable postoperative vomiting by mulin O CLARK Folha med 1927 viii 153

Bronchopneumosis as a preventive of postoperative pulmonary complications SULA and PÉREZ ICAETE Iro de la clin Madrid 1927 vi 599

Improvement of intravenous infusions particularly continuous drop infusion intra-venous anaesthesia and scientific experiments H LAMBERT Zentbl f Chir 1927 lii 1567

Injections of oil (physiological and biochemical studies) L BINER and H BINER Presse Méd Pa 1927 xxv 862

The effect of ultra violet and roentgen rays on the reaction of the skin S KAPLANSKY and S SOLOWEITSCHIK Ztschr f d ges exper Med 1927 lv 111
Quartz light and diathermy their practical use A I GLEASON Northwest Med 9 xxvi 4
The effect of diathermy on the circulation C I BROWN H L ALT and S A LEVINE J Am M Ass 1927 lxxv 875

Diathermy in general practice A J REYE Med J Australia 1927 ii 566
Sinusoidal therapy J E G Waddington Clin Med & Surg 1927 xxiv 657
The history and therapeutics of static electricity W B SNOW Clin Med & Surg 1927 xxiv 664
Radiotherapy its production and employment F T WOODBURY Clin Med & Surg 1927 xxiv 681

MISCELLANEOUS

Clinical Entities—General Physiological Conditions

Status lymphaticus and sudden death J ANDERSON and J A M CAMERON Glasgow M J 192 cviii 129
Non painful psoriasis G T TYLER JR J South Carolina M Ass 19 7 xxii 460
Padium therapy and diabetes F MACCHIA Actino terapia 1927 vi 178
Gangrene of the foot M WEISS Beitr z klin Chir 19 7 cdl 211 29
The fat content of tumors GARATE Arch de med cirug y especial 19 viii 13
Multiple cavernous angiomas of the sweat ducts associated with hemiplegia B W C ARCHER Lancet 9 7 ccviii 595
Podent ulcer E H MOLESWORTH Urol & Cutan Rev 1927 xxii 543
Ulcer of the leg bone lesions and syphilis C TERRI JONESCO and COHEN Bull et mém Soc méd d hôp de Par 19 7 xliii 1180
Necrotizing inflammations of the skin A MOST Beitr z klin Chir 19 7 cdl 23 19
Granuloma coccidiosis—apparently successfully treated with colloidal copper H P JACOBSON California & West Med 1927 xx ii 360
Cancer J A COUPAL Am J Surg 1927 iii 209
Cancer in the history of medicine G ROUSSY Presse m d Par 19 7 xxiv 849
Modern cancer research W H WOODMAN N York State J M 1927 xxvii 1009
The Institute of Cancer Research Columbia University I C WOOD N York State J M 19 xxvii 005
The cancer exhibit of the Medical Society of the State of New York I OVERTON N York State J M 9 7 xv ii 997
The etiology of cancer B T SIMPSON N York State J M 1927 xxvii 006
Some notes on cancer W MILLER Med J & Ec 19 7 xxvi 77 349
Some observations on the cancer problem DREW N Zealand M J 1927 xxvi 25
Some observations in the nature of cancer Preliminary report Studies in the incidence and inheritability of spontaneous tumors in mice M SLAY J Cancer Res sea Ch 1927 x 35
Popular education as a factor in the cancer problem J M SWAN N York State J M 1927 xxvii 011
The prevention and diagnosis of cancer I EIVEN N York State J M 1927 x ii 1015
The value of the coagulation time in the diagnosis of cancer I ERLMAN and A POPIN Zent blatt f Chir 1927 lv 1995
Multiple primary malignancies I P BULL and J A REYNOLDS Med J & Ec 9 7 ccvii 287
Clinical comments on the forms of fusocellular sarcoma C A CASTRO Semana méd 19 7 xxxiv 28

A case of recurring sarcoma W A WILKINS Canadian M Ass J 1927 x ii 058
The treatment of malignant disease B F SCHREINER N York State J M 1927 xxvii 010
The medical treatment of cancer Farouki's method J G BRERA Bull Soc d obst et de gynéc de Par 19 7 vi 441
Sulphur in the treatment of malignant tumors O CROZZI Riforma med 19 xliii 68
The colloidal lead treatment of malignant neoplasms W S STONE and L F CRAVIER Ann Surg 19 7 lxxvi 34
Epithelioma in the radiologist cured by Bordier's method I MARQUIS Presse méd Par 1927 xxv 04
Three cases of epithelioma treated successfully by deep rays W M MOLLISON Proc Roy Soc Med Lond 19 7 x 1

General Bacterial Protozoan and Parasitic Infections

Is primary tuberculous infection always a disease of childhood and oral experience? PHELEBOV Presse méd Pa 1927 xxv 31
A method of promptly identifying bacillus aerogenes capsulatus (baillus wchii) L NEUB Surg Clin N Am 1927 ii 021
A case of bacillus infection in senile and diabetic gangrene I K TANNER Surg Clin N Am 19 7 vii 1099
A case of cephalic tetanus W FLETCHER and J P FITZPATRICK Lancet 1927 ccviii 545
The pyogenic activity of the bacillus S ROLLO Ann ital di ch 1927 vi 685
Rat bite fever J I FOSTER Atlantic M J 1927 xxx 784
Rat bite fever—report of a case with demonstration of the causative organism and its use in the treatment of parvosis S BRYNE JONES N York State J M 1927 xxvii 13
The bacteremias due to bacillus perfringens L BOEZ and J SCHREIBER Presse méd Par 9 7 xxv 1127
Septicemia due to perfringens bacilli of buccodental origin G CAUSSADE and L GLUCK Bull et mém Soc méd d hôp de Pa 19 7 xliii 1244
A case of anthrax septicemia R VAN DER MUEHLL Rev méd de la Suisse Rom 1927 cxvii 558
Tularaemia in Iowa in 1916 A V HARDY J Iowa State M Soc 1927 xvii 317
Studies on the biology of streptococcus VII Allergic reactions with strains from erysipelas A R DOCHET and F A STEVEN J Exper Med 1927 xli 487
Transmissible toxicogenity of streptococci M IROBIKER JR and J H BROWN Bull Johns Hopkins Hosp Balt 1927 b 167
Studies on streptococcus bacteriophage C I A powerful lytic principle against hemolytic streptococci of erysipelas origin G SHWARTZMAN J Exper Med 1927 cli 497

FEBRUARY 1928

International Abstract of Surgery

Supplementary to
Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H. MARTIN, Chicago
SIR BERKELEY MOYNIHAN KCMG CB, Leeds
PAUL LECENE Paris

SUMNER L. KOCH, Abstract Editor

DEPARTMENT EDITORS

EUGENE H. POOL General Surgery	LOUIS E. SCHMIDT Genito Urinary Surgery
FRANK W. LYNCH Gynecology	PHILIP LEWIN Orthopedic Surgery
JOHN O. POLAK Obstetrics	ADOLPH HARTUNG Roentgenology
CHARLES H. FRAZIER Neurological Surgery	HAROLD I. LILLIE Surgery of the Ear
F. N. G. STARR Abdominal Surgery	L. W. DEAN Surgery of the Nose and Throat
CARL A. HEDBLUM Chest Surgery	ROBERT H. IVY Plastic and Oral Surgery

CONTENTS

I	Index of Abstracts of Current Literature	iii
II	Authors	ix
III	Editors' Comment	x
IV	Abstracts of Current Literature	87-144
V	Bibliography of Current Literature	145-172

Editorial communications should be sent to Franklin H. Martin, Editor, 54 East Erie St., Chicago.
Editorial and Business Offices: 54 East Erie St., Chicago, Illinois, U.S.A.
Publishers for Great Britain: Baillière Tindall & Cox, 8 Henrietta St., Covent Garden, London, W.C.

CONTENTS—FEBRUARY, 1928

ABSTRACTS OF CURRENT LITERATURE

SURGERY OF THE HEAD AND NECK

Head

- TRY R M The Structure and Origin of the Mixed Tumors of the Salivary Glands 87

Eye

- PINES N Arterial Hypertension and Retinal Changes 88

Ear

- WILLIAMSON G S, RICHARDS F H and Others Discussion on Progressive Middle Ear Deafness 88
 ARNOULT N The Lymphatic of the Ear 88
 HORNE J The Formation of a Circumscribed Intradural Abscess at the Site of the Superficial Lymphatics 89
 PORTMANN G Vertigo Surgical Treatment by Opening the Sacus Endolymphaticus 89

Nose and Sinuses

- GUTHRIE D and DOTT N On the Occurrence of Brain Tissue within the Nose the So Called Nasal Glioma 89
 REBATTU J and PROBY H Experimental Ozena 89
 BARANGER The Treatment of Malignant Tumors of the Nasopharynx 90
 SEGURA V and ZUBIZARRETA H Recklinghausen's Fibrous Osteitis of the Sphenoid and Ethmoid Sinuses 90

Mouth

- BERRY SIR J, GREY TURNER G, ADDISON O L, VEAU M V and Others Discussion on the Treatment of Cleft Palate by Operation 90
 BUNNELL S Cleft Palate Repair—The Cause of Failure in Infants and Its Prevention 91
 LITZWILLIAMS D C L The Treatment of Cancer of the Tongue 91
 MACKENZIE D W and WAUGH T R Cystadenoma Pseudopapilliferum Malignum of the Kidney with Metastases in the Tongue 123

Pharynx

- OCHSNER A and NESBIT W Pulmonary Abscess Following Tonsillectomy Preliminary Report 97

Neck

- DUNHILL T P Toxic Goiter The Place of Surgery in Its Treatment 9
 MURRAY G R Toxic Goiter Indications for Surgical Treatment 92
 FIBERTS F M and FITZGERALD R R Malignant Diseases of the Thyroid Gland 9
 PORTMANN U V Radiation Therapy in Malignant Disease of the Thyroid Gland 93
 CLERF L H Laryngeal Complications of Irradiation 93
 LITVAK S A Case in Which Skin Was Grafted in the Laryngeal Cavity by the Thiersch Method 93
 HANFORD J M Roentgen Ray Treatment of Tuberculous Cervical Lymph Glands A Study of 41 Patients Treated by Small Doses of Filtered Roentgen Ray with Follow Up Results 138
 CLUTH H M The Surgical Treatment of Tuberculous Gland of the Neck 138

SURGERY OF THE NERVOUS SYSTEM

Brain and Its Coverings Cranial Nerves

- GUTHRIE D and DOTT N On the Occurrence of Brain Tissue within the Nose the So Called Nasal Glioma 89
 GRANT F C Chronic Subdural Hematoma 94

Spinal Cord and Its Coverings

- BERNARD A, HERMANGE M and DELCOUR J A Case of Medullary Compression by Primary Tuberculous Cervical Pachymeningitis 95

Peripheral Nerves

- PERERA A Anatomical Anomalies of the Phrenic Nerve and Their Influence on the Effects of Resection in Pulmonary Tuberculosis 95
 DESGOUTTES L and DENIS R Delayed Paralysis of the Ulnar Nerve Following Fractures of the External Condyle of the Humerus 95

SURGERY OF THE CHEST

Chest Wall and Breast

- FINZI N S and Others Discussion on X Rays and Radium in the Treatment of Cancer of the Breast 96

NOVAK E. Ovarian Metastasi with Cancer of the Uterine Body Is Translatal Implantation an Important Factor? 113

External Genitalia

PETLSON R. Transplantation of the Ureter into the Bowel to Secure Sphincteric Urinary Control in Incurable Vesicovaginal Fistula 113

Miscellaneous

WHITENHOUSE B. Some Problems of the Menstrual Function with Ovarian Cystitis on the Right Side of the Cranium, Fibula and Corpus Uterum with Pathological Uterine Hemorrhage 4

IAVOLI C. The Topography and Clinical Aspect of Tumors of the Female Genitalia 114

HAMANT A. and CORNILLI Th. Lymphatic Origin of Certain Cystic Formations in the Female Pelvic Total Castration of the Female 5

GUILLMIN A. Serial Accumulation in the Pelvis Following Operation 5

OBSTETRICS

Pregnancy and Its Complications

HOLTERMAN C. Pelvic Infection After Amenorrhea Induced by Röntgen Irradiation of the Ovary 6

TAUSIG F. J. The Amniotic Fluid and Its Quantitative Analysis 16

GUILLMIN A. Extra Uterine Pregnancy Ruptured by Spontaneous Discharge with Complications Hemorrhagic 16

Labor and Its Complications

DELEE J. B. The Navel as on the Mechanism of Cervical Laceration During Labor A Preliminary Report 116

HENDRY J. Spontaneous Rupture of the Uterus Before or During Labor 117

JALLETT H. The Value of Cesarean Section 117

GENITO URINARY SURGERY

Adrenal Kidney and Ureter

PAOLUCCI F. A Hereditary Benign Hypernephroma in a Hereditary Sac 100

PETLSON R. Transplantation of the Ureter into the Bowel to Secure Sphincteric Urinary Control in Incurable Vesicovaginal Fistula 113

BEGG P. C. Incontinence of Urine of Internal Origin THOMSON WALKER Sir J. Tuberculosis of the Kidney 118

FULLERTON A. Statistics of Postoperative Survival in Renal Tuberculosis 118

THOMPSON T. Carbuncle of the Kidney 121

DANIEZ P. Multiple Infarcts of the Kidneys 121

BIANCHIERI T. The Diagnosis and Treatment of Malignant Tumors of the Kidney 122

MOTZ G. Pyelography and Pyeloscopy in the Diagnosis of Tumors of the Kidney and Pelvic 122

MACKENZIE D. W. and WAUGH T. P. Cystadenoma of the Kidney with Metastases in the Tongue 123

MARONA I. Duodenal Fistula Following Nephrectomy 123

GAUDIANI V. Surgical Treatment of the Ureter with an Extravesical Opening 124

SCHREIBER M. Ureteral Stricture Its Anatomical and Pathological Background Based upon the Findings in 100 Consecutive Autopsies 124

CARSON W. J. Metastatic Carcinoma in the Ureter 125

Bladder Urethra and Penis

GRAVES R. C. Studies on the Ureter and Bladder with Especial Reference to Regurgitation of the Vesical Contents The Bladder Pressure Curve in the Human 125

JONES J. J. and LOWER W. I. Inflammation Lesion of the Bladder Simulating Neoplasm 125

HEIMANN F. The Changes in the Bladder in Case of Cancer of the Uterus Treated by Irradiation 126

DEAN A. L. JR. Ulceration of the Bladder as a Late Effect of Radium Applications to the Uterus 126

FALCONI I. A New Method of Treating Hypertrophy 126

Genital Organs

LOWER W. I. Complete Closure of the Bladder Following Prostatectomy 127

CAMPBELL M. F. Gonococcal Epididymitis 127

MORRIS J. H. Malignant Tumors of the Testicle with Special Reference to Classification 128

Miscellaneous

CUTLER I. H. Obstruction of the Urinary Tract 128

KRIEDEMANN H. A. R. Poliomyelitis Involving the Urinary Tract 128

IBERDACH C. W. and ARN R. D. Hexylresorcinol in Urinary Tract Infections Therapeutic Effect 129

SURGERY OF THE BONES JOINTS MUSCLES TENDONS

Conditions of the Bones Joints Muscles Tendons Etc

SCHAUFFLER R. MCE. Recurrent Multiple Osteomyelitis Due to Staphylococcus Aureus 130

DEGA W. and ZEHLAND J. The Pathogenesis of Osteitis Fibrosa 130

BÉRARD and TAVERNIER The Treatment of Osteoarthritis by Physical Agents 130

GRUCA A. A Case of Congenital Ulno Palmar Club Hand with Subluxation of the Fingers 130

DONATI M. Lower Dorsal Kyphosis in Adolescents 131

WOMACK N A Subcutaneous Melanoma Hutchin- son's Melanotic Writlow		WOOD F C Combined Radiation and Lead Therapy	140		14
SLYE M Some Observations in the Nature of Can- cer Preliminary Report Studies in the Inci- dence and Inheritability of Spontaneous Tu- mor in Mice		ULLMANN H J Colloidal Lead and Irradiation in Cancer Therapy			14
SSOKOLOV N N The Changes in the Histological Structure of a Cancer Following Section of Its Sensory Nerve Supply and the Influence of This Neurotomy on the Course of Various Pathological Processes	141	Surgical Pathology and Diagnosis			
		DUIGEON L S and PATRICK C V A New Meth- od for the Rapid Microscopical Diagnosis of Tumors with an Account of 200 Cases so Examined			14
	14	LEWIS W H The Vascular Patterns of Tumors			143

AUTHORS

OF THE ARTICLES ABSTRACTED IN THIS NUMBER

- Addison O L 90
 Andre en A F R 101
 Angelelli O 135
 Armani L 96
 Arn R D 29
 Arnoult N 89
 Babcock W W 100
 Baranger 90
 Barnes I L 108
 Beggs R C 118
 Bernard A 93
 Berry Sir J 90
 Biancheri T 1
 Bonnet I 100
 Boorstein S W 134
 Botreau R u sel 03
 Brisset 13
 Bunnell S 9
 Buttl r H B 103
 Cadenat 104
 Campbell M I 127
 Car n W J 5
 Claff L H 93
 Clute H M 138
 Cohn I 133
 Constam G R 136
 Connell H I 33
 Cornil L 5
 Cutler I H 128
 Danhie I 121
 Da A L Jr 6
 Dega W 30
 Delcours J 95
 DeLee J B 116
 Denis R 95
 Des outtes L 95
 Deveze L
 Donati M 3
 Dott N 89
 Dro gemu ll r C H 0
 Dud o L S 4
 Dumas A 37
 Dunhill T P 9
 Duval P 102
 Dyke S C 37
 Eberbach C W 29
 Ebert E M 9
 Fab r K 0
 Falcone R 126
 Fallis I S 106
 Finzi N S 96
 Fitzgerald R R 92
 Fitzwilliam D C L 91
 Fontaine R 137
 Fry R M 87
 Full r n A 118
 Caudia i A 4
 Cant I C 94
 Crantham S A 3
 Crave P C 125
 Crav W P 2
 Gre n C H 96
 (ry Turn r G 90
 Cruca A 30
 Cuillemin A 115 116
 Cuthne D 89
 Hamant A 15
 H nfo d J M 138
 Haselhor t G 00
 Hedblom C A 98
 Heilmann F 126
 H ndry J 117
 Hermange M 95
 H rtzler A E 108
 H lt rmann C 116
 Horne J 89
 Horsley J S 102
 Ivy A C 101
 Jellert H 17
 J nnius J E 98
 Joel n J J 15
 Judd E S 104
 Kaplan I I 110
 Keene F E 113
 Keller R 99
 Kreutzmann H A R 18
 Lambinudi C 13
 Leriche R 103 137
 L i D 140
 Lewis W H 143
 Litvak S 93
 Lov r W E 123 127
 Lubmann K 96
 Mackenzie D W 123
 Mar gna I 23
 Ma on J T 101
 Masson J C 11
 Ma rodin D 137
 McI he ters H O 136
 Meyer J L 101
 Moniz I 36
 M rns J H 18
 M tr C 122
 Murray G R 9
 Nesbit W 97
 Novak L 3
 O h n A 97
 O good R B 3
 Iancoast H A 113
 Pa lucci I 100
 Papin M 2
 Patk r D W 98
 Paroli G 114
 Patrick C A 14
 P ndergra s L I 13
 P rdoux 104
 Perera A 95
 Permar H H 131
 Pet r n R 113
 Pccardo T J 111
 Pier on I H 97
 Pine N 83
 Portmann G 89
 Portmann U A 93
 Pratt J I 106
 Irobey H 89
 Putti A 134
 Ramond L 99
 Ravault P 37
 Razzaboni G 106
 Rebattu J 89
 Richard L H 88
 Ri,ano Irrera D 99
 Ritvo M 100
 Rowntre e L G 96
 Schaulffler R McL 130
 chmit H i 0
 Schreiber M 124
 Segura A 90
 Shipley A M 133
 Sly M 141
 Sn ll A M 96
 Sokolo N N 4
 Tebbing G I 134
 Taus ig I J 116
 Ta erniet 130
 Thompson J 121
 Thomson Walker Sir J 118
 Tzovaru S 137
 Ullmann H J 14
 Veau M A 90
 Verbruycke J R Jr 102
 Wallace J O 31
 Waugh T R 123
 Weill Spire R 99
 Weiss S 100
 Whipple A O 107
 Whitehouse B 114
 Will am on C S 88
 Wornack N A 140
 Wood I C 14
 Zeyland J 30
 Zubizarreta H 90

EDITOR'S COMMENT

A FURTHER report of Slves experimental studies on cancer in mice with particular reference to the incidence and inheritability of certain forms of malignant growth (p. 141) is of great interest not only because of its bearing on the pathogenesis of malignant tumors but also because of the impetus it gives to the study of cancer control and the encouragement it affords to the hope that cancer may some day be eradicated. That mice which belong to a resistant strain do not develop a subcutaneous sarcoma following trauma that mice born of mothers with cancer do not develop cancer either in infancy or later if the father is resistant to cancer and that cancer resistance is dominant over cancer susceptibility are emphasized as significant facts with reference to the inheritability of cancerous disease.

The fact that the mice which develop early breast cancers are among the largest and strongest specimens that in spite of the presence of large tumors such mice show little systemic change before infection and the absorption of dead tumor tissue occur the fact that cancer does not interfere with reproduction that the young born of cancerous mothers never have cancer in infancy that the growth of tumors is retarded during gestation and that in animals with an anterior axis the growth of both the animal and a cancer is more pronounced at the anterior pole—all are cited with other facts as evidence pointing away from the theory that cancer is a germ disease. In the author's opinion no observation made in her laboratory during eighteen years of experimental study has been consistent with the germ theory of cancer.

Dean Levis discussion of gangrene of the extremities (p. 140) and W. H. Lewis' beautifully illustrated studies on the vascular patterns of tumors (p. 143) emphasize the increasing interest that is being shown in the study of the vascular system under normal and abnormal conditions. Since Brooks' observations on the possibility of demonstrating the permeability of the arteries of the lower limbs by the injection of sodium iodide

(*J. Am. M. Ass.* 1914 lxxxviii 1016) and the more recent experimental studies of French and American workers with injections of iodized oil into the arteries of the lower extremities new impetus has been given to the question of diagnosis of vascular lesions and of their location and extent. Needless to say the discovery of insulin and the increased safety afforded by its use in the many cases of vascular lesions complicated by diabetes have been important factors as well. Lewis' suggestion to force the formation of the collateral circulation in the leg by ligation of the femoral artery in cases of thromboangitis and Holman's advice to occlude the corresponding vein under some circumstances above the site of arterial lesion when ligating a large arterial trunk (*Ann. Surg.* 1927 lxxxv 173 INT. ABST. OF SURG. 1917 xlv 189) are some of the practical conclusions resulting from these studies.

Schreiber's investigation of the findings with reference to the presence of ureteral stricture in 100 successive autopsies (p. 144) is an interesting contribution on this much discussed question. The author stresses the importance of congenital narrowing of the ureter of secondary involvement following inflammation of the pelvic viscera particularly the bladder and of compression by the vas deferens and uterine artery. Of the causes the second group is particularly significant for it is in ureteral strictures resulting from inflammation of adjacent structures that treatment particularly prophylactic treatment offers promise of success.

Grant's interesting paper on chronic subdural hematomata (p. 94) Fry's careful study of six teen mixed tumors of the parotid and submaxillary gland and his conclusion that these tumors are not mixed (p. 87) that they are entirely epithelial in origin and do not contain cartilage Botreau Poussel and Cadenat's report of a case of ileo ileal intussusception in an adult (p. 105) and Hedblom's discussion of the diagnosis and treatment of bronchiectasis (p. 98) are a few of many other recent papers deserving careful consideration.

INTERNATIONAL ABSTRACT OF SURGERY

FEBRUARY 1928

ABSTRACTS OF CURRENT LITERATURE SURGERY OF THE HEAD AND NECK

HEAD

Fry R M The Structure and Origin of the Mixed Tumors of the Salivary Glands *Brit J Surg* 1927 25 291

This article is based upon sixteen typical mixed tumors and nine atypical tumors of the parotid or submaxillary glands which were removed at St Mary's Hospital London in the period from 1912 to 1923.

The typical mixed tumors show two main types of tissue (1) that in which the cells are abundant and lie closely packed together and stroma is very scanty or almost non-existent and (2) that in which there is considerable stroma and the cellular elements are widely scattered and lie singly or in small groups.

When there is much parenchyma and little stroma the cells being closely packed together show very indefinite outlines. Their nuclei are large and round or oval and show distinct nuclear markings and often a well marked nucleolus. When there is abundant stroma the scattered cells show a tendency to become triangular or spindle shaped and the nuclei generally lose their regular shape and clear markings.

The stroma consists of two distinct parts—one a network of fine fibrillar connective tissue and the other a substance closely resembling mucin and staining with Mayer's mucicarmine. The latter substance varies in its appearance in places having a definite fibrillar structure when it stains intensely with mucicarmine and in other places being quite homogeneous in appearance not unlike the matrix of cartilage. Where the mucinous stroma is homogeneous the cell occasionally seem to lie free within small circular vacuoles in the stroma and around the periphery of these vacuoles there is usually some condensation of the mucinous material leading to the formation of a more deeply staining ring. In these areas the appearance is scarcely distinguishable from that of a matrix of cartilage.

In the arrangement of the cells four variations have been noted

1 Irregular masses without definite arrangement. An adenomatous arrangement suggesting glandular and gland duct formation.

3 An alveolar formation in which alveoli of varying sizes are found. Many of these alveoli may be formed by the dilatation of the duct-like structures mentioned. They are sometimes empty and sometimes contain a homogeneous material which stains very intensely with eosin or picric acid. In some instances they contain mucin.

4 A type of tissue which appears to consist of interlacing double columns of cells which have split down the middle of the columns. This appearance is produced by papilliferous ingrowths into dilated alveoli or by irregular compression of alveoli.

The nine atypical tumors were omitted from the first group because of the absence of large areas of mucin containing scattered cells which by secondary changes give rise to the so-called cartilage. The one resemblance of these tumors to the others was their undoubted epithelial origin. They differed from the typical tumors and from each other in their degree of malignancy and the extent of their secondary changes.

The author draws the following conclusions

1 The so-called mixed tumors of the salivary glands are not in reality mixed but entirely epithelial in origin. In most cases they are derived from the ducts of the gland but occasionally they arise from the secreting cells.

2 The mucinous material which is such a prominent feature of most of these tumors is a true secretion of mucin by the tumor cells which is only an exaggeration of a normal function of the gland cells.

3 The tumors do not contain cartilage. In the substance which has been described as cartilage the matrix is formed by a change in the mucin of the tumor whereby it loses its fibrillar appearance and its power of staining deeply with mucicarmine. The cells are epithelial cells.

4 Some of the tumors show varying degrees of malignancy. There is no definite dividing line

between the benign and malignant and some of the more malignant growths may show many of the features typical of the benign type of tumor

J I N KIRAP RI MD

EYE

Fine N Ate f Hyp tns on and R tinal
Chang s B i J Oph 97 489

Incubate arterial hypertension and etiological changes from the viewpoint of the general practitioner. He reports the findings of examinations he made for arteriosclerosis of the retina. In the case of patients who continued in with regard to order having nothing to do with their visual organs nor with hypertension. The object of the examination was to truly the different stages of the pathologic process. He is unable to carry out a complete investigation is possible in the cases of hospital patient. He examined the urine only for sugar and albumin and called it normal if albumin and sugar were absent and the specific gravity as normal. He did not determine the quantity of urine excreted in 4 hours made test of kidney efficiency. Wermann test to examine the element of the urine microscopically. When examining the eye he noted only the objective general changes as shown by the electrophthalmoscope. He seldom used a mydriatic. He did not measure the visual acuity nor study the field of vision or the sense of color.

He admits that the really serious symptoms from the scientific point of view but it was necessary for him to carry out his investigation the very simple manner be due to the impossibility of performing all of the highly technical tests and because it is a hindrance on the simple basic examination a careful attention should be given forth some valuable results.

When he determined the blood pressure the patient sat with the blood pressure mat on the same level as the pulse of the heart. Each patient was examined at least twice at different times.

It was usually necessary to rely entirely on the electric ophthalmoscope the sphygmomanometer and the routine examination of the urine which he made with every by the general practitioner.

The arteriosclerosis made palpation difficult. The arteriosclerosis made the pulse of palpation but because he believed it very difficult to determine by the means of the hardening of the arterial hypertension was due to arteriosclerotic changes of the contraction of the muscular tunica media. The arteriosclerosis of the clin can differentiate from the arteriosclerosis of the pathologic nature. The pathologic nature of the term sclerosis of the tunica intima which correspond to thetherosclerosis of MacCall and the sclerosis of English author the ultimate form of which rather more.

From examination of the following conclusions:

1. Sclerosis of the arterial vessel recognized first of all from the loss of translucency of the

vascular wall. Other signs develop later. In a normal person on the sclerotic may not be in until very late and even in advanced age when the vessel of other parts of the body are affected by arteriosclerosis may not be present if the blood pressure is normal.

The same to in which is the cause of essential hypertension quickly develops arteriosclerotic changes in the retinal vessel even at an early age if the arterial hypertension continues long enough. Its action may then cease and clinically the general vascular system may recover completely but the arteriosclerotic changes in the retinal vessel remain permanently.

3. There is some reason to believe that the toxic of essential hypertension is pre-renal in origin but cannot return to arteriosclerotic retinitis are probably caused by different to in. It is probable that there is some intimate connection (endocrine) between the state of the retina and activity of the kidney.

L SLIE L MCCOY MD

EAR

Williamson G S Richards E H and Others
Discussion in Progress of Middle Ear Deafness
Pr Act Soc Med Lond 97 813

From a study of chronic middle ear deafness William reached the conclusion that deafness is due to nervous tachycardia and deformity of the nose has its onset in childhood and is not associated with deafness. He emphasizes that a test for auditory acuity as distinct from deafness is urgently needed.

Research is concluded from a study of hearing tests that the Gelle and Weber tests are difficult to interpret and unreliable.

JAMES C BRISLEY MD

Anoult N The Lymphatics of the Ear (Ct
but Let d d lymphat q d pp 1
d t i t i t d t y g 97 69

The lymphatics of the external ear drain into the parotid gland the mastoid gland and the subtemporal gland. Those of the external auditory meatus and the outer surface of the tympanic membrane drain into the superior subparotid gland and the epiparotid gland the inferior parotid and the subglandular. The lymphatics of the mucous layer of the inner surface of the tympanic membrane empty into the external auditory meatus. In the fibrous layer some lymphatic es surround the handle of the hammer in the muscular layer the network of lymphatics connect the tube with the external auditory meatus through the tympanic membrane. The author is unable to inject any lymphatic vessels in the tympanic cavity.

The external lymphatic acts passing from the mucous membrane of the eustachian tube. One of them empties into the subtemporal mastoid gland either directly or after being arrested temporarily in the retropharyngeal gland. Another which exists in the middle ear follows the canal of the latinate and

empties into the sublingual glands. A third which also exists in most subjects passes directly through the retrostoid space to the sublingual glands. The fourth not infrequently empties into the parotid glands through the tympanic network and the lymphatic vessels along the external auditory meatus. There are no lymphatic vessels in the internal ear. The perilymphatic and endolymphatic spaces and fluids take their place. The perilymphatic space communicates with the subarachnoid spaces through the aqueduct of the vestibule in the space which separates the endolymphatic sac from the bone canal through the nerve sheath and probably through the aqueduct of the cochlea. The endolymphatic space apparently does not have any communication with the subarachnoid spaces.

Inflammations and tumors of the pavilion may cause involvement of the parotid mastoid or sub-sternomastoid glands. In malignant tumors of the pavilion these three groups of glands should be removed. As the external auditory meatus and tympanic membrane do not send any lymphatics to the mastoid group a painful swollen mastoid gland cannot be considered a sign of otitis media or external otitis limited to the meatus; it indicates only an infection of the helix, the anthelix or the navicular fossa.

There is a lymphatic tract which starts from the pavilion of the tube, passes along the tube to the tympanic membrane, traverses the tympanum, follows the external auditory canal and may reach the parotid glands. This explains the phlyctenule of the epidermal layer of the tympanic membrane and the external auditory canal often seen in the course of suppurative or non suppurative otitis. In acute otitis media the course of the lymphatics explains both the painful and swollen preauricular glands and infection and suppuration of the retropharyngeal glands. The connection of the perilymphatic spaces with the subarachnoid spaces described explains how bacteria from the internal ear may invade the arachnoid directly.

ANDREW G. MORGAN M.D.

Horne J. The Formation of a Circumscribed Intradural Abscess at the Site of the Saccus Endolymphaticus. *Proc Roy Soc Med Lond* 1927 xx 1868.

The author reports two cases of circumscribed intradural abscess at the site of the saccus endolymphaticus. This lesion is rare. Horne found only two cases reported in a period of nearly thirty years. Such abscesses may be treated surgically.

JAMES C. BRASWELL M.D.

Portmann G. Vertigo. Surgical Treatment by Opening the Saccus Endolymphaticus. *Arch Otolaryngol* 1927 1309.

Portmann reports the practical results of his research on the saccus endolymphaticus which was carried out over a period of eight years.

The saccus lies in a space formed in the dura mater where it is divided into two layers. The normal func-

tion of the labyrinth is influenced by any change or modification of the tension of the cerebrospinal fluid. The increasing pressure produced through the saccus endolymphaticus and the membranous labyrinth may provoke the Meniere syndrome and the increase of intralabyrinthine pressure may have an endolabyrinthine cause.

In glaucoma the intra ocular tension is relieved by puncture of the cornea. In some cases of unilateral glaucoma with serous labyrinthitis it seems logical to make a decompression particularly if medical treatment has failed.

The operative technique and the surgical anatomy are described in detail. In the operation devised by Portmann the first step consists in reaching the fossa endolymphatica and localizing the saccus. The saccus is situated in the triangle formed by a line extending to the lower surface of the antrum above the aqueductus fallopian in front and the lateral sinus at the back. The surface of the mastoid is exposed and trephined at a lower level than that of the usual opening for mastoiditis. This square of approach aims to reach the lateral sinus without opening the antrum. After exposure of the bony wall of the sinus the dura covering the posterior surface of the petrous bone is separated to a distance of 3 or 4 mm. The bony region that represents the most outward part of the fossa endolymphatica is then removed an exploratory puncture of the saccus is made and paracentesis is done. The retroauricular wound is sutured around a small gauze drain.

W. M. PATON M.D.

NOSE AND SINUSES

Guthrie D. and Dott N. On the Occurrence of Brain Tissue within the Nose, the So Called Nasal Glioma. *Proc Roy Soc Med Lond* 1927 xx 749.

A differentiation is made between normal glial tissue in the nose due to an embryonic rest and neoplastic gliomatous tissue which has eroded through the cribriform plate. The authors report a case of erosion of the cribriform plate by a spongioblastic frontal glioma. The embryonic rests which form encephalocoeles are not unusual but this is the only case of the kind that they have been able to find on record.

In cases of long standing intracranial tension cerebral hernia into the minute natural spaces of the dura are common. The authors believe that if these hernia become involved in a neoplastic process the latter will almost certainly penetrate the dura and by pressure erode the cribriform plate into the nose.

ERIC OLDBERG M.D.

Rebattu J. and Proby H. Experimental Ozena (Ozena experimental). *1 ch internat le laryngol* 1927 xxxviii 804.

The authors report the case of a man forty years old who was wounded by a grenade and subsequently developed a unilateral atrophic rhinitis. The roentgen picture suggested an injury of the sphenoidal

the ganglion and the superior maxillary nerve. There was probably a deep injury of the sympathetic fibers of the ganglion and nerve. This would explain the absence of the nasofacial reflex and the sensory disturbances since the sphenopalatine nerve which is the sensory root of the maxillary is closely connected with the superior maxillary nerve which also contains sensory fibers. The injury to the sympathetic was too deep to cause irritation and therefore caused trophic disturbances the most striking of which was ozæna. On bacteriological examination a pure culture of typhlococci was obtained. The rhinitis developed slowly and was of extreme

This case demonstrates that injury of the sphenopalatine ganglion causes atrophy but bacterial infection is necessary for the development of atrophic rhinitis. The view that otitis is caused by injury of the sympathetic lphenopalatine ganglion and the view that it is caused by infection are not conflicting. Intensive local action for the infection and sympathetic and endocrine treatment bring about improvement and in many cases recovery.

AUDR G M R N M D

Brange A The Treatment of Malignant Tumors of the Nasopharynx (Quilley, 1907)

Malignant tumors of the nasopharynx are very deep seated. All antineoplastic remedies include the use of alcohol and adenine to decrease the size of the tumor and the application of antiseptic compresses. The ideal treatment is complete removal into sound tissue but even when subglottic epiglottic approach is by the lateronasal route its complete removal is practically impossible as it has generally extended beyond the nasopharyngeal cavity. The operation is therefore associated with the danger of causing dissemination.

Coagulation by d athermy i o l v palliative The best t eatme tis r adiat n ith roentg n r r al um rays I cases of d finely curcum c bed tumors such as some fibr sarcomata d cert in epithel o mata v thout enla gemic t f the gl n l go d results may be obta ed th ell fite l gmma radium avs hich are more electi and more localized than the roentge avs Thes rays h v ever my cause nec o s of the bonv all of the ca tv In mal grant tumors v hich ar not d fitely circumscribed only a pallati c effect c n be obta ed For such tumo the ntgen rays h ch are les electi c but al o less localized than the gamma ridium rays should be u ed In cases of lympo a coma both the tumor and the enla ged glands disappear q cklv While they recur lter d the recurrences are more res tant to the rays lfe m v be considerably prolonged by the treatment In cases of c tensi c epitheli mata tle tumor may be decreased in s e but the recur ence are more resistant and the effects are not so good as in sar coma

Aut Ey G Morgan MD

Fibrous Osteitis of the Sphenoid and Ethmoid Sinuses (Osteofibroule Recklinghausen's disease) (Mandl et al.)

The patient whose case is reported was a woman thirty six years old who had had difficulty in nasal respiration especially on the left side since the age of seventeen years. A turbinotomy was done but after this operation the root of the nose slowly became deformed and swollen and there was swelling of the all of the orbit. Anterior and posterior rhinocopy showed a rough hard tumor occupying the left nasal fossa. The tumor was totally extirpated. It had occupied the greater part of the maxillary, phenol and ethmoidal sinuses. The results of its removal are perfect.

The specimen presented the typical picture of Recklinghausen's disease abundant connective tissue with fine fibers in cell and vessel walls containing only small fusiform and stellate cells osteoclasts or giant cells in little groups; nests in which they had hollowed out; the bone substance bone trabeculae still calcareous or undergoing lacunar absorption in young newly formed trabeculae without calcium. This case shows that in the localized form of Recklinghausen's disease radical operation is the treatment of choice. In the generalized forms only palliative treatment is possible.

MOUTH

Be y Sr J Gey Turner G Addison O I
Venu M V and Otle D sc ssion n the
Tre tment of Cleft P lit by Operati
P R v s M d Lo l g z 897

BERRY states that for the best results the cleft palate operation should be performed between the ages of eighteen months and three years. He does not favor closure of the soft palate at a relatively early age and closure of the hard palate later. When this is done the scar tissue makes the secondary operation more difficult and the separation of the soft tissue from the posterior edge of the hard palate is much more arduous. The most important part of the cleft palate operation is the restoration of the soft palate.

The important features of the lateral approach are discussed in detail for the correction of the teeth should be corrected before the operation. The general health must be good. When the operation is performed the patient's head is well elevated and the head is turned back there is less tendency toward hemorrhage. Thorough preparation of the soft tissues of the bony plate is of importance. Care must be exercised to avoid the posterior palatal arch. The lateral incision is relieving tension should be short except in cases of second operation. In the closure of the large holes in the hard palate Berry uses deep tension sutures and protects the rubber plates in place of the lateral incisions.

The postoperative care should be simple. The diet should consist of milk or a mixture of milk and water. Washes and sprays are not advisable.

GRAY TURNER reviews his personal experience illustrating his report with drawings showing the condition in various cases and supplementing it with statistical tables. He favors the one stage operation. He avoids free lateral incisions and uses short ones only when they are strictly needed. Dental treatment has proved a useful adjunct to operation. Speech training is most valuable when it is begun soon after the operation.

Secondary operations, the postoperative care and operations on adults are discussed.

ADDISON states that in his opinion the Langenbeck operation gives the best results.

CAU describes the operation of muscular suture in detail. Total non union occurred in only 2 per cent of the cases.

PITTS discusses the cleft palate operation from the viewpoint of the dental surgeon. He believes that the Brophy operation causes considerable distortion of the dental arch. From the standpoint of comfort surgical treatment is much better than a prosthetic appliance. Both the flap method of Lane and the Langenbeck operation cause some distortion of the dental arch. There is often a marked discrepancy between the anatomical and functional result. Surgical and dental method should be regarded as complementary rather than antagonistic.

NICHOL reports upon eighty six cases which he divided into three groups according to the type of operation performed.

MACMURDO discusses speech training.

GILLIES in discussing secondary operations states that conditions for speech are at their worst when the soft palate is so far forward that it cannot be of aid in the closure of the oronasal passage. As a result of the approximation of the maxilla the upper lip and nose are situated too far back. Gillies suggests methods for the correction of the malformations.

LUGGE states that the best age for the first operation is during the second or third month of life.

FRY emphasizes the importance of a functional soft palate. If the hard palate can be closed without bringing the soft palate forward this should be done. In other cases a plate should be used to correct the defect.

Valuable contributions to the discussion are made also by GRZYDER, WARD, HIGGINS, WARDELL and BROPHY. W. M. PATON, M.D.

Bunnell, S. Cleft Palate Repair—the Cause of Failure in Infants and Its Prevention. *Surg. Obst.* 1927, 1: 530.

The main cause of failure in the repair of cleft palate especially in infants is the sucking action of the tongue. Before a method of preventing this suction action was devised the palate often partially broke down in the first or second week following its repair. The break occurred in either the

middle or the posterior half. It resulted in scarring, contracture and the necessity for further operation and when the palate was finally closed it was found to be short and unsatisfactory.

The sucking power of infants averages 152 mm Hg while that of adults averages 440 mm Hg. By the author's method closure of the palate is possible at a very early age.

Soon after the infant's birth the alveolar processes are aligned with wires and plates. The lip is repaired when the infant is between two and four weeks of age. The alignment of the alveolar processes is a simple procedure but the lip operation is associated with the danger of fatal hemorrhage especially if there is malnutrition. To prevent such hemorrhage the intravenous administration of 50 c.c. of the mother's blood is of value. The plate is closed in two stages from one to three months after the operation on the lip.

In the first stage flaps approximating each other in the midline are elevated and then replaced for a week. Lateral freeing incisions are avoided if possible and are never carried backward through the muscles and vessels of the soft palate. At the time of this operation a wax impression is made of the alveolar arch.

During the interval of one week between the first and second stages of the operation a false palate of sheet silver is made in a dental laboratory. Wires are brought down and out from the lateral incisors and are later bent to fit the face. The silver is perforated at numerous points. In the second stage of the operation in which the palate is closed a plaster cap with hooks is applied to the patient's head. The false palate is put in the mouth against the upper alveolus and the wires are brought out of the mouth back across the cheek, bent up around the hooks in the plaster cap and then fastened with rubber bands so that the false palate will be held against the alveolus by gentle pressure. Plaster casts are put on the arms.

After this procedure the mouth is kept clean and the false palate is cleaned once a day by lowering it a little. The patient is fed through a tube in the pharynx. The stitches are removed on the twelfth day under anesthesia but the false palate is left in two days longer. JAMES B. BROWN, M.D.

Fitzwilliams, D. C. L. The Treatment of Cancer of the Tongue. *Lancet* 1917, 1: 907.

Cancer of the tongue has a rapid growth and a poor prognosis. It commonly starts as a simple ulcer fissure or other benign lesion. Leukoplakia is a frequent precursor. The benign lesions should receive early and effective treatment.

The spread of the cancer is downward into the lymphatics which run along the muscular fibers. The spread of the lesion is not apparent from the surface but is extremely rapid. The early involvement of the neck glands is due to the active muscular contractions of the tongue driving the cancer cells along the lymph channels to the glands.

Operative treatment is most effective when the primary focus is removed first. The glands should be attacked later. In the primary operation the initial anesthesia is maintained by means of a laryngotomy tube passed through a stab wound in the cricothyroid membrane. The tongue is controlled by stout silk threads passed through it. The mucous membrane is divided as far back as the anterior pillar of the fauces and the styloglossus muscles are divided. The hypoglossus muscle put on the stretch by traction on the tongue is divided and the exposed lingual artery is ligated. Adequate mucous membrane flaps are fashioned. The growth is removed and the flaps are sutured over the raw stump. Recovery is usually rapid.

Two or three weeks later the entire gland bearing fascia at the side of the neck together with the submaxillary gland and sternomastoid muscle is removed. Preliminary to this dissection the external carotid artery is divided between two ligatures. The glands must be carefully protected from injury.

The primary growth can be attacked also with radium. The most effective method the implantation into the lesion of small platinum needles containing osmium. These should be left in for a week. In some cases a second dose may be necessary. The glands may be treated with radium implants or radium blocks but this treatment is often followed by recurrence. Diathermy is usually to be condemned on account of the resultant necrosis and sepsis but in some cases it is invaluable.

In the author's opinion the treatment he has outlined is much superior to the methods in common use.

W. M. PATTERSON, M.D.

NECK

Dunhill T. P. Toxigenic Glands. The Place of Surgery in Its Treatment. *B. M. J.* 97, 77.
Murray C. R. Toxigenic Glands. Indications for Surgical Treatment. *B. M. J.* 97, 774.

DUNHILL. Clinically the two types of toxic goiter—primary and secondary—are sometimes indistinguishable.

They depend upon whether the toxicity has developed in a previously normal or a previously diseased gland. The exciting cause may be a physical factor such as a focal infection or iodine deficiency or a psychical factor. In the cases of patients who are economically unable to undergo a prolonged rest cure and in cases with certain complications which do not respond favorably to medical treatment—such as heart failure, persistent glycosuria, severe dropsy, and insanity—operation may be necessary regardless of the type of the goiter.

Anesthesia may be induced with nitrous oxide and oxygen by the intratracheal method or by rectal ether. When the condition is complicated by myocardial failure, local anesthesia is superior to general anesthesia. Whenever feasible the operation should be done in one stage. If this is impossible the patient should be informed of the fact before the first operation so that he will not be disappointed. In the second operation is necessary.

MURRAY. Toxic goiters may be divided into two groups: (1) primary toxic goiter including (a) simple toxic goiter and (b) exophthalmic goiter and (2) secondary toxic goiter including (a) simple secondary toxic goiter (b) toxic adenoma and (c) secondary toxic goiter.

Primary toxic goiter is usually amenable to medical treatment unless complications develop. In primary exophthalmic goiter surgery should be instituted if six months of medical treatment fail to bring about improvement or if early signs of cardiac failure are noted.

In secondary toxic goiter medical treatment is apt to be discouraging even if the toxicity subsides the goiter still remains. If three months of medical treatment fail to cause improvement operation is indicated.

In toxic adenoma operation is usually advisable. Medical treatment may give some relief but as a rule the improvement is of short duration. If operation is refused X-ray treatment should be given.

Secondary exophthalmic goiter is rare. In this condition operation should be done as soon as the symptoms are well defined. Medical treatment is disappointing and early myocardial failure is frequent.

Toxic symptoms may develop when a cyst or an adenoma become infected. In such cases the toxemia subsides promptly when the pus is evacuated.

T. S. MOSELEY, M.D.

Eberts E. W. and Fitzgibbon R. R. Malignant Disease of the Thyroid Gland. *I. S. S.* 97, 155.

The authors review the literature on malignant disease of the thyroid gland since Wilson's report in 1902. Wilson listed 90 cases to the 1910 already reported and the authors have found in the literature a total of 432 cases reported since Wilson's article. With 14 new cases reported from the Montreal General Hospital the total number of cases on record is 1,876.

In the diagnosis of malignant thyroid the most difficult clinical differentiation is that between thyroid malignancy and chronic diffuse thyrotoxicosis. In the latter there is a dense uniformly hard swelling of moderate size which is usually unilateral at first but soon involves the entire gland. The surface of the gland remains smooth and the normal shape is retained. The patient shows an early axillary pain (myxoedema).

In the treatment of thyroid malignancy little hope is offered by operation alone. Operation alone should be followed by radiation. Radium alone gives results which compare unfavorably with those obtained by other methods.

Early operation is desirable. The best results are obtained in cases which are operated upon under suspicion of malignancy and in those in which the malignancy is first discovered at operation.

I. L. W. S. ELLIOTT, M.D.

Portmann U V Radiation Therapy in Malignant Diseases of the Thyroid Gland *J Int W* 137 1927 XXXIX 1131

The clinical diagnosis of malignant disease of the thyroid gland was difficult in at least half of the cases in the author's series because small encapsulated neoplasms cannot be palpated. The most important clinical evidences of malignant degeneration are the sudden rapid growth of a pre-existing goiter and the recurrence of thyroid enlargement.

When the growth has passed outside the gland capsule as manifested by fixation of the tumor in involvement of the lymph nodes or metastases the condition is inoperable.

Of the author's patients who were treated by operation alone only 9 per cent were cured and only 18 per cent were living one year or longer after the operation.

Supplementing operative treatment with irradiation brought about a distinct improvement in the results. Of the patients treated by operation and roentgen ray irradiation combined 18 per cent were clinically cured and a like number are living and clinically well from four to five years after the treatment. This indicates the possibility of effecting a cure in 36.5 per cent of cases treated by the combined method.

Of twenty-two patients treated by roentgen irradiation alone operation being impossible 25 per cent are living from two to three years after the treatment—a fact suggesting that some of these neoplasms are susceptible to irradiation.

Of all the patients treated and untreated 28.3 per cent are living more than one year and 14.4 per cent more than three years since they first came under observation. Of the patients who could be treated 37.6 per cent are living more than one year 18.8 are living more than three years and 1.8 per cent are living five or more years since treatment was instituted.

It appears that the best results are obtained by operation followed by irradiation since 2.6 per

cent of the patients who have remained cured for five years and 36.6 per cent of those who have survived for three years were treated in this manner.

The final results indicate the advisability of applying irradiation in every case of malignant disease of the thyroid gland.

The explanation for this observation may lie in the fact that apparently the cellular structures of many malignant growths of the thyroid are sensitive to irradiation because of their fetal or embryonic origin and because metastasis must take place through small blood vessels or lymphatics which are also comparatively susceptible to irradiation.

HOWARD A. MCKNIGHT M.D.

Clerf L H Laryngeal Complications of Irradiation *Arch Otol* 3 1901 1927 VI 338

With regard to untoward effects of irradiation of the neck, Clerf discusses the problems of tissue sensitivity, individual susceptibility, cumulative effect and filtration. In cases of recurring papillomata of the larynx in children irradiation has no place. It does not cure such tumors nor inhibit their growth. The indiscriminate use of irradiation in cases of cancer of the larynx is to be discouraged. In the treatment of operable laryngeal cancer the advice of both the surgeon and the radiologist must be taken into consideration.

HOWARD A. MCKNIGHT M.D.

Litvak S A Case in Which Skin Was Grafted in the Laryngeal Cavity by the Thiersch Method (Ein Fall von Hauttransplantation nach Thiersch in die Larynxhöhle). *Vestnik khir i poigr* 18 1926 1926 VI 1176

This is a brief report of the successful grafting of skin in the laryngeal cavity by the Thiersch method. The patient was a nine-year-old girl who had been subjected to the Mangoldt operation for laryngeal stenosis. After excision of the scar a large mucous membrane defect was covered with the transplant. Recovery resulted in the course of a month.

ALIPON (Z)

SURGERY OF THE NERVOUS SYSTEM

BRAIN AND ITS COVERINGS CRANIAL NERVES

(Crant F C Chronic Subdural Hematoma 1
S g 71 48)

Crant reports three case of chronic subdural hematoma to show how comparatively trivial trauma may result in serious intracranial conditions.

Case 1 was that of a man of fifty-two years who fell down stairs and sustained a fall on his head after the accident to the head not considered seriously injured and returned to work after ten days. A week later headache developed and he was followed by mental impairment, irritability, aphasia and thickened speech. Within a week after the injury the patient was totally incapacitated.

Examination revealed disorientation, severe aphasia, semi-profound blurring of the optic disk, overfilling of the retinal vessels, a right lateral homonymous hemianopia and partial right hemiplegia.

Röntgenogram of the skull showed a fracture of the left temporal parietal occipital region. When the postoperative flap was turned over the area an old extensive subdural blood clot as found in the following removal of the clot the patient recovered and returned to his work after three weeks.

Case 2 as that of a woman of sixty-five years who fell from a ladder striking the left occiput on the pavement. It was not known whether she was rendered unconscious or not. She awakened the next day but on the evening day after the injury she developed headache and dizziness. These symptoms persisted but she continued with her work for a month. At the end of this time it was noted that she had a right facial palsy, was deaf. About six weeks after the fall she began to omit became stuporous and developed speech defects.

Examination revealed profound and stupor, motor aphasia, aphasia, a complete right hemiplegia. The knee jerk was reflexed on the right side and increased on the left side. On the left side there was a positive Babinski reaction. Röntgenogram of the skull revealed a fracture of the fracture. Lumbopuncture showed a clear fluid under normal pressure. The Queckenstedt test showed a normal result.

Conservative treatment was decided upon at first but later in the day operation was performed because the patient slowly declined. As in Case 1 a large organized blood clot was found and removed. The patient recovered after the operation and was still well three years later.

Case 3 as that of a man of forty-three years of age who was knocked down and battered by heavy waves while bathing in the surf. He was slightly dizzy after the accident and in an hour developed

a severe temporal headache. During the next hour his vision became blurred and finally his left eye became blind and there was marked loss of vision in the right eye. By the next morning however his sight had returned and after a week he resumed his work with only some headache and mental dullness as sequelae of the injury. About three weeks after the injury following severe mental strain he developed motor aphasia and a semi-stupor. Convulsions then occurred in the right side of the face and the right arm and he soon became stuporous.

The findings of the physical examination were about the same as those made in Case 1 and 2. Lenient galvanization in the left temporoparietal region. Operation revealed a large clot covering the entire left side of the brain. Over 6 oz of clot were removed. The dura was greatly thickened because in Case 1 and it showed little change. Convulsions as stormy but the patient went home five weeks after the operation and returned to work at the end of three months. Soon thereafter he had a Jacksonian attack on the right side but recovered in a few hours. Later he had a transient aphasia for an hour or so but aside from being a citable he seemed to be fairly normal.

The pathology of chronic subdural hematoma is obscure. Although its description in 1857 is still generally accepted. The hemorrhage is strictly subdural extrarachnoid and probably not a single mass of hemorrhage but a slowly progressive transformation of small vessels with more or less organization. Internally with fresh extensions of the blood.

Cushing and Putnam have called attention to the fact that in the subdural clots of traumatic or origin the area of the clot next to the dura is more dense than in clots of chronic inflammatory conditions and is composed of organizing granulation tissue with large metachromic red spaces containing blood and fibrin in which appear to anastomose with each other and with the capillaries.

The clinical picture is similar whatever the pathological change. There is usually a fairly long latent interval followed by the slow development of signs. Intracranial pressure and a rather abrupt onset of severe local symptoms. Remissions are frequent.

The treatment is the same in all cases viz immediate operation and removal of the clot. In some cases decompression has been accomplished through a trephane opening and aspiration on the basis of done with a bismuth. At the time it may be necessary to protect the dura of the other side to relieve bilateral cerebral edema. Postoperative edema is sometimes prevented by the use of hypertonic solutions during the critical period. On the whole the end results are satisfactory. A. R. S. CRAWFORD M.D.

SPINAL CORD AND ITS COVERINGS

Bernard A Hermange M and Delcours J A
Case of Medullary Compression by Primary
Tuberculous Cervical Pachymeningitis (Un cas
de compression médullaire par pachyméningite cer-
vicale tuberculeuse primitif) *Bull et Mém Soc méd
d hôp de Par* 1917 *vol* 1277

The authors report the case of a patient forty
eight years old who experienced two epileptiform
attacks followed by the rapid development of a
spastic paraplegia which later tended to become
flaccid. Lipiodol revealed obstruction between the
sixth and seventh cervical vertebrae. Laminectomy
was done with resultant fatal syncope.

Autopsy revealed a localized internal tuberculous
pachymeningitis with syringomyelic cavities due
to compression myelomalacia. The upper end of the
lesion corresponded closely to the level of the ob-
struction to the lipiodol and was somewhat higher
than the upper limits of the sensory disturbance.
In hypertrophic spinal pachymeningitis the upper
limit of sensory disturbance may be misleading as
it localizes only the area of medullary softening.

Primary tuberculous pachymeningitis without
involvement of the vertebrae is rare. Not more than
a dozen cases have been reported. As a rule the
tuberculous nature of a pachymeningitis cannot be
diagnosed clinically and may be suspected only
when a syndrome of medullary compression and a
hypertrophic cervical pachymeningitis appear in a
non syphilitic patient who presents visceral evidences
of tuberculosis. LEO M ZIMMERMAN M D

PERIPHERAL NERVES

Perera A Anatomical Anomalies of the Phrenic
Nerve and Their Influence on the Effects of
Resection in Pulmonary Tuberculosis (Anoma-
lias anatómicas del frenico y su influencia en los
efectos de su resección por tuberculosis pulm nar)
Prog de la clin Madrid 1927 *vi* 335

Section of the phrenic nerve results in paralysis
and elevation of the diaphragm and limitation of
respiratory activity on the side on which it is done.
Its favorable effects upon healing are therefore simi-
lar to those of thoracoplasty.

The operation is rendered difficult chiefly by
anatomical anomalies. In some cases it may be
incomplete because of the presence of anomalous
branches of the phrenic nerve or its results may be
interfered with by adhesions. Traction should be
exerted on the nerve trunk and the section done at
the lower extremity. The subclavian branch should
be destroyed by dissection. A search should always
be made for an accessory phrenic nerve.

Contrary to the general belief phrenicectomy is
not followed by appreciable symptoms unless the
filaments of the vagus have been injured.

WILLIAM R MEEKER M D

Desgouttes L and Denis R Delayed Paralysis
of the Ulnar Nerve Following Fractures of the
External Condyle of the Humerus (Les paralysies
tardives du cubital à la suite des fractures du
condyle externe de l'humérus) *Presse méd Par*
1927 *xxx* 868

The case reported was that of a girl of eighteen
years who in the course of a year developed
atrophy of the intrinsic muscles of the left hand. All
movements of the hand were preserved but strength
was reduced and the hand felt clumsy. At the elbow
there was a marked valgus angulation.

A diagnosis of retarded ulnar paralysis consecutive
to a fracture at the elbow was made. At the age of
three years the patient had had a severe injury at
the elbow but received no medical attention for it.
A roentgenogram made by the authors showed a
marked displacement upward of the external con-
dyle.

At operation the nerve was found thick, hyper-
emic and flattened where it passed through the
ulnar groove. It was displaced from the ulnar groove
to the anterior surface of the forearm and fixed under
a flap of fascia. Rapid recovery followed.

The theory of pathogenesis found most accept-
able by the authors is that of Destot. Destot
demonstrated that the nerve suffers no damage
from deformity in valgus alone but as the power of
extension is recovered the olecranon encroaches
more and more on the ulnar groove and a neuritis
results from repeated pinching of the nerve.

ALBERT F DEGROAT M D

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Finzi N S and Otle D Discussion on X Ray
and Radium in the Treatment of Cancer of
the Breast 147 97 78

Cancer of the breast spreads first by the lymphatics and later by the blood stream. The fact that cancer cells can be traced along the lymphatic channels seems to show that it is the cells themselves that spread the disease. The cells of normal tissues do not appear to enter the lymphatics.

The lymphatics of the breast pass mainly into the pectoral group of axillary gland and in some instances directly to the subclavicular and intercostal spaces. These areas must therefore receive primary attention in treatment with x-ray or the roentgen rays.

Radium rays are much more penetrating and seem to exert a more marked effect on carcinoma than X rays but may cause injury to the underlying lung.

With the roentgen rays the use of a glancing method will prevent such damage to a large extent. The authors describe this method in detail.

As compared with the X-ray external application of radium in the treatment of osteopetrosis, the major advantage is greater penetration into the marrow sub-lesions. In general, multiple foci or series of lesions and continuous application. The difficulties are the difficulty of administering an even dose over a large area and of avoiding injury to normal tissue. Radium treatment may be given also by giving a number of radium containers in the tissue.

The result obtained by the use of either calcium or the X-rays may be summarized by stating that palliation and prolongation of life are the rule and cure is the exception.

When a case is not too far advanced radium seems to give better results than the X rays
I. L. W. S. FET MD

Armani I Roentgen Su gical Te t nent of
Cancer of the Breast (C l ul t tt
mo t l h i g l l d th m mm ll)
t t t p j 7 \ 93

The anti or quotes statistics from number of hospitalizing that the mortality rate is constantly increasing. Next to cancer of the uterine cancer of the breast the most frequent form of cancer in women. Statistics show that at least temporary recovery has been obtained in a fairly good percentage of early cancer but that in late cancer the results have been poor. Statistics for cases in which radiotherapy has been associated with surgery indicate that careful roentgen treatment improves the results of surgery.

The results so far indicate that the method of radiotherapy must be carefully selected in each case there is no single technique that can be applied in all cases. The patient should be examined by the roentgenologist in collaboration with the surgeon and also if possible with the histologist and the method of treatment selected should be based upon the combined judgment of all. Patients in poor general condition should not be irradiated. Excessively large doses or too long continued treatment are contraindicated. Too much should not be expected from any special technique but on the other hand there is no reason for a pessimistic rejection of all methods.

In case of operable cancer of the breast irradiation in the hospital the special case should be given if the patient is in good general condition. In principle the best results are obtained by moderate postoperative irradiation. Though autologous postoperative irradiation seems to yield the best results it should be given only when recommended by the surgeon. In cases of recurrence irradiation seems to give better results than does another operation. LUDWIG MORITZ

Luhm nn K Postope atle Roentgen Irrad a
t n of Carcinoma of the Breast and Its Tech
nique (U p t p t K nlg b t hl gd
M mm r m n i i T chn l) B t hl
Cl o2 cx 544

In the comparison of statistics regarding the result of treatment Steinthal's classification of carcinomata of the breast is of practical value. In Jung's scheme an erroneous classification of benign cases cannot be avoided. As a criterion of improvement after postoperative irradiation the percentages of the Steinthal II group should be used.

In seventy five cases operated upon and irradiated three years ago, and fifty four cases so treated five years ago freedom from recurrence was found as follows:

P m	l e e f f m	II		II b		II		II c	
		N		N	e	N		N	e
Ti	ce	8	3 3	4	37 8			0	4 38
F	s		4	7	4				9 9

Th n n irradiated cases treated in the same clinic not be compared as more than a third of the patients could not be traced.

As compared with the statistics of Dietrich and Frangenberg, which showed three year survival in the Steinthal II group in 30 per cent of the cases in

foreign countries and in 55 per cent of those treated in Germany, the results obtained in the Goettingen Clinic by irradiation show an improvement of from 8.7 to 13.2 per cent.

In every case the carcinoma dose was given at one time and usually within a period of fourteen days a large field including the axillary and infraclavicular fossae was irradiated with a skin target distance of from 40 to 50 cm. A tube field including the supraclavicular fossa was irradiated at a distance of 3 cm or more and a posterior field corresponding to the thoracic field was treated. Each field was given from 100 to 110 per cent of the skin erythema dose with filtration by 1 mm of copper and 1 mm of aluminum. This treatment was not repeated before eight weeks.

In numerous secondary irradiations telangiectases occurred four times and a small roentgen ulcer developed twice. Injury of the lungs was not evident either subjectively or objectively.

As carcinomatous glands may be present in spite of negative findings on examination cases in the Steinthal I group should also be irradiated. Of the patients in this group 83.3 per cent were free from recurrence after three years and 7.7 per cent were free from recurrence after a period of five years.

HINTZE (Z)

TRACHEA LUNGS AND PLEURA

Ochsner A. and Nesbit W. Pulmonary Abscess Following Tonsillectomy. Preliminary Report. *Arch. Otolaryngol.* 1927 vi 330.

When tonsillectomy is performed under anaesthesia some of the material that enters the pharynx during the operation may be aspirated. Whether an abscess of the lung develops or not depends on several factors, most important of which are the character of the material aspirated and the protective mechanism of the cough reflex.

In the authors' opinion aspiration occurs as frequently during tonsillectomy performed under local anaesthesia as during those performed under general anaesthesia.

That a pulmonary abscess following tonsillectomy may be the result of the passing of an infected embolus from the vessels of the neck to the lung has been shown by a few isolated clinical cases in which multiple pulmonary abscesses were demonstrated.

One of the most convincing proofs in favor of the aspiration theory of lung abscess is the invariable existence of a communication between the abscess cavity and a bronchus. By a pathological study of ten cases of pulmonary abscess following tonsillectomy, Ochsner demonstrated that the abscess cavity is a direct continuation of a bronchus.

The mass of evidence reviewed indicates that the most common mode of infection is aspiration into the tracheobronchial tree when the protective reflexes are abolished. Under general anaesthesia these reflexes are abolished under local anaesthesia they are supposedly not abolished. The authors

believe that their observations supply the evidence necessary for support of the aspiration theory. They have proved that the introduction of only a 0.5 per cent procaine solution into the peritonsillar tissues abolishes certain protective reflexes of the respiratory tract.

HOWARD A. MCKNIGHT, M.D.

Pierston P. H. Non Tuberculous Pulmonary Suppuration. *California & West Med.* 1927 xv 1151.

Pierston reports thirty cases of non tuberculous pulmonary suppuration to clarify the syndrome of pulmonary abscess, bronchiectasis and chronic pneumonia which for the past decade has been confused with that of pulmonary tuberculosis.

In the cases of pulmonary abscess due to the aspiration of foreign material the onset was usually gradual with fever, malaise and an unproductive cough. After a period of from twelve to fifteen days chills and sweats were added to the picture. The symptoms persisted until the abscess ruptured. In cases due to anaerobic bacteria there was often a latent period of from ten days to a fortnight.

In cases in which the condition was the result of embolism following an operation the onset was sudden with sharp pain in the chest followed by fever and an unproductive cough. After a period of from ten days to two weeks the abscess usually ruptured.

The development of a pulmonary abscess in bronchopneumonia was indicated by the recurrence of a protracted fever after apparent subsidence of the infection. On account of the danger of producing an empyema the author warns against diagnostic needling in such cases unless there is visible evidence of adhesions between the visceral and parietal pleurae.

In two of the cases reviewed an abscess developed in an upper lobe after a rib fracture.

In the diagnosis of lung abscess a detailed history is often necessary to determine the etiological factor. A careful roentgenographic study is of great value in determining the etiology as well as the location, character and progress of the abscess. Repeated negative examinations of the sputum for tubercle bacilli in cases with considerable purulent expectoration should suggest a pyogenic abscess rather than a tuberculous lesion. The physical signs are often indefinite and meager as compared with those produced by a tuberculous lesion of like extent.

In the cases reviewed the treatment was of two types, medical and surgical. In the medical treatment reliance was placed chiefly on general supportive measures. Few drugs were used. In cases of acute abscess postural treatment was of great value. When medical treatment failed after a trial of from four to six weeks surgical treatment was given. In the absence of adhesions between the pleurae the two stage thoracotomy offered the best results. In all cases in which a foreign body is sus-

pected or known to be present bronchoscopy should be considered

In cases of chronic pneumonia and bronchiectasis an accurate diagnosis is essential for proper treatment. The pathology of the two conditions is described. Roentgenological study after the administration of hipodol is helpful in distinguishing bronchiectatic cavities and saccular dilatations from diffuse fibrosis. The patient should be prepared by postural drainage of the cavities for at least an hour prior to the administration of the hipodol.

The essential of medical treatment include a change of residence to a climate that is warm and dry. Local treatment by postural drainage and diathermy are of value. Attention to the general health, artificial or natural sun baths, rest, and a high caloric diet are of great importance. Autogenous vaccine therapy has been found of great value for the relief of the cough and expectoration.

Surgical measures are indicated to eradicate foci of infection. In unilateral conditions which do not improve under medical treatment drainage of the large cavities and Graham's cautery lobectomy offer a hope of cure. Extrapleural thoracoplasty with avulsion of the phrenic nerve is a means of compressing the affected lung. In chronic pneumonia and bronchiectasis as well as pulmonary abscess pneumothorax is associated with the danger of producing a pyopneumothorax.

J. E. IN KIRKPATRICK, M.D.

Hedhlof, C. A. The Diagnosis and Treatment of Bronchiectasis. *J. D. M. J.* 971, 384.

The diagnosis of bronchiectasis based on the ordinary clinical observations has often been doubtful as to the distribution of the condition and always incomplete as to its type and extent. By bronchography with the use of a contrast medium the presence, distribution and type of bronchial dilatation may be visualized.

The principles of surgical treatment of bronchiectasis are drainage, compression and resection. Drainage, the treatment of choice in single cavitations and for localized gangrenous extension. The method of pulmonary compression is artificial pneumothorax, phrenic excision, extrapleural thoracoplasty and pneumolysis.

In early mild cases artificial pneumothorax or temporary paralysis of the phrenic nerve or both are indicated as tentative procedures. In cases of longstanding the treatment of choice is phrenic excision and graded extrapleural thoracoplasty. The usual result is marked improvement approaching a symptomatic cure.

On account of the high postoperative mortality and the frequency of residual bronchial fistula primary lobectomy and graded cautery extirpations are not to be recommended. Secondary lobectomy when indicated following thoracoplasty and phrenic excision should prove relatively safe and very effective.

SAMUEL K. IN M.D.

Jennings, J. E. Chronic Empyema. *Ann. S. S.* 971, 616.

Jennings reports two cases of chronic empyema in which the lung was collapsed covered over by a thick pleura and lying back against the spine.

In the first case that of a nineteen year old boy with a history of tuberculosis the first operation was performed after about two years of inadequate drainage and tapping. The first step in the treatment consisted in securing adequate drainage by resecting portions of three ribs. A few weeks later the lung was stripped from its bed and allowed to roll forward. About three months later the chest was again opened and the false membrane stripped from the surface of the lung. The lung was freed a flap of the chest wall under the scapula was mobilized and allowed to drop back and portions of the sixth, seventh, eighth, ninth and tenth ribs were removed to collapse the cavity at the bottom. A small sinus persisted and gave increasingly severe symptoms though its intermittent opening and closing. An operation for the closure of this sinus a bronchial fistula was found. This finally closed after rib resection and muscle implantation.

In the second case a debridement was done and the chest closed. Twenty months later a fluctuant opening. The removal of a rib sequestrum found at the bottom of the sinus tract was followed by recovery.

The author emphasizes the importance of the wide flap opening in the chest, all incision of the pleura along the outer edge and liberation of the lung from its bed so that it may come forward. Because of the larger of the lung in strip, the pleura, the pleura on the anterior surface of the lung is not touched. The technique is shown in a number of illustrations.

M. L. M. M.D.

Parker, D. W. The Treatment of Empyema in Children by the Closed Method and Suction Drainage. *B. J. S. J.* 971, 653.

In the diagnosis of empyema reliance to be placed chiefly on the X-ray and the aspirating needle. The latter may be used without hesitation to determine the presence or absence of pus as well as the type of the infection.

Statistics have shown that empyema is especially serious in the first few years of life regardless of the type of treatment. The mortality is influenced by the character of the infection, the patient's age, and the time of operation. The choice of treatment is a much mooted question. If it prefer the closed method but for a series of 66 cases Ladd and Cutler conclude that except streptococcus infections, resection gave more satisfactory immediate and remote results.

The author reports eighteen cases with one death. In his method of treatment a pirated, at least, is done before operation usually in the posterior axillary line between the seventh and eighth ribs to determine the character of the exudate. If the fluid

is frank pus thoracotomy is performed at once but if it is serofibrinous or thin and only slightly turbid aspiration alone is done to relieve pressure symptoms and thoracotomy is deferred until the character of the exudate changes

Novocain infiltration anesthesia was used in all but one of the cases reviewed. An incision from 1 to 1½ in in length was made in the posterior axillary line between the seventh and eighth ribs down to the fascia covering the latissimus dorsi muscle. The fascia of the muscle was then incised in line with the muscle fibers. The muscle was split and the ribs and intercostal space were exposed. The intercostal muscle was then further infiltrated and perforated with forceps or scissors. When pus appeared a 24 to 27 F catheter was introduced through the opening.

Previous to the operation a piece of rubber dam 3 in square was perforated in the middle and drawn over the catheter. The rubber dam was tied around the catheter from 1½ to 1 in from the tip. This made a shield which was plastered to the chest wall with adhesive tape after closure of the incision. The catheter was further anchored with tape strips.

Pus was then aspirated with a syringe but the aspiration was stopped upon the first sign of discomfort or coughing. After the aspiration a large dressing was applied and the child put to bed in a sitting posture. To obtain air tight drainage the catheter was connected to glass and rubber tubing leading to a jar of water on the floor and the clamp was not removed from the catheter until after the tubing had been placed in the water. With this method no special instruments are required.

Twenty four hours later the chest was irrigated through the catheter every two hours with from 30 to 60 c cm of 1 per cent chlorzine solution. This procedure was continued throughout convalescence. In the author's opinion the solvent action of the Dakin's solution is the most valuable feature of the treatment. The tube should be left in the chest for from fifteen to twenty days.

GEORGE A COLLETT M D

HEART AND PERICARDIUM

Ramond L and Weill Spire R A Cure of Purulent Pneumococcal Pericarditis by Epigastric Pericardotomy (Guéri on d une péricardite purulente à pneumocoques par péricardotomie épigastrique) *Bull et mém Soc méd d hôp de Par* 1917 *vol* 1163

Paracentesis pericardii is not satisfactory in the treatment of acute purulent pericarditis. As soon as the condition is diagnosed a pericardotomy is indicated. The thoracic approach however has seemed formidable as it places quite a strain on the already very sick patient. The epigastric operation which was recommended by Larrieu is simple and easily performed and not nearly so much of a tax on the patient's resistance as the thoracic procedure. In the technique described by the authors an incision is made over the xiphoid process and the latter is resected. The peritoneum is then pushed back, the diaphragm incised, the overlying pericardium opened, the pus evacuated and a soft rubber drain inserted.

In the case reported the patient a woman twenty three years of age had had a left jugular thrombophlebitis secondary to otitis. Following an operation on the mastoid she developed severe abdominal pain, dyspnea and dullness in the chest. Nothing was revealed by pleural puncture but later the cardiac dullness was found to be increased. Paracentesis of the pericardium yielded 240 c cm of pus which on culture showed pneumococci. Two more such punctures were made in the following ten days but no improvement was noted in the general condition. Finally a pericardotomy was performed by the technique described and 400 c cm of pus were evacuated. The fever and general symptoms then abated gradually, drainage was maintained abundantly for fifteen days but thereafter slowly subsided and two months after the operation it had stopped. Five months later physical and roentgen ray examination failed to show any evidence of pleural or pericardial inflammation.

MICHAEL L MASON M D

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Pauluce F A Herer Jogan Ben g Hypernepl
rom n a lle m l Sac (ip f m t l b
b) i l l f 9 7

666

The patient whose case reported was a youth eighteen years of age who had an inguinal hernia on the left side for two years. When the hernial sac was opened its wall was found to be covered in part by little tumors ranging in size from that of a millet seed to that of a lentil. Microscopic examination of these tumors showed granulation tissue. At about the middle of the posterior wall there was a soft yellow body about the size of a small lentil. On microscopic examination this tumor was found to have the structure of the suprarenal all three layers of the cortex being represented.

This case shows that there may be abundant up a renal bodies in organs of the testes related embryologically to suprarenal tissue and that they may form true tumors. The tumors may be benign as in this case or malignant. (M. M. D.)

Babcock W W The Ideal in Herniorrhaphy a New Method Efficient for Direct and Indirect Inguinal Hernia. Surg. G. Ob. 1901. 334

A normal incision for inguinal hernia is one which passes transversely directly over the internal inguinal ring from a point just within the semilunar line to a point slightly external to Poupart's ligament.

The thinnest and weakest portion of the external oblique muscle lies over the inguinal canal. If the fibers are separated directly over the canal the edge of the flap or the part best protected in the closure will be the weakest link for the best mechanical closure of overlapping edge. The external oblique should be carefully split by a scalpel from without in a direct line the testis and most widely separated fibers that are found over the hernial canal. The outer surface of the external oblique should not be freed from adherent fascia and not tented well but the under surface should be freely separated by blunt dissection from the underlying internal oblique muscle and from the inner anterior layer of the sheath of the rectus to the midline.

The hernial sac should be approached from without in a direct line above downward in the canal and near the internal ring. The cord should not be raised and explored posteriorly. If the sac is not promptly found by retracting the internal oblique and transverse abdominis and out and the peritoneum just medial to the internal ring should be exposed and opened and the finger introduced to

examine for any other sac or weakness. Transplantation of the spermatic cord is not essential. If the cord left alone most of the postoperative complication in the scrotum will be avoided.

The hernial sac should be eliminated especially its funnel-like mouth and the neck of the sac should be transplanted behind a part of the abdominal wall that is strong and thick. Good chromicized catgut is entirely efficient for the deep closure.

Strength in the union of the layers of the abdominal wall all come from the fibrous aponeurotic expansion is not from the nature of the muscle. Below the chief part to be obtained from the ligamentum inguinalis to the dense fibrous cord of the pubis above and internally for the conjoint tendon the fibrous inner layer of the aponeurosis of the rectus and the external oblique.

Cluette-Heslbach's triangle the most troublesome weakness is done by uniting the lateral edge of the inner layer of the anterior sheath of the rectus to the internal fibrous covering of the pecten pubis.

The types of the herniorrhaphy are described in detail and shown by illustration. A thick pad is tacked over the union and supported by a firm spica bandage. The spica bandage should not compress the abdomen above the level of the iliac crest. Children and young robust adults are kept flat for ten days. A middle-aged and senile patient is not those with much fat, poor musculature and aponeurotic development are kept in bed for eight to ten days. As a rule the patient leaves the hospital from four to ten days after the operation. He is then instructed to rest weekly or whenever the pain becomes too severe to work for six weeks and to avoid lifting for three months. At the end of three months the hernia is permitted to do full work.

The author believes that a herniorrhaphy properly performed and followed by proper union will not break down under any condition unless applied later than six weeks after operation.

R. DE T. M. G. IL. M. D.

GASTRO INTESTINAL TRACT

Rit o M and Weiss S Physiological examination of the Gastrointestinal Tract in the Roentgen Ray. Dig. 1917. 97. 3

The Roentgen examination of the gastrointestinal tract by means of the opaque meal difficulties are at times encountered in the interpretation of findings because of absence or sluggishness of peristalsis and poor tone or spasm. A direct mechanical method which would overcome the condition would therefore be of great assistance. Atrip

and massage have been used but with only partial success

In their attempts to find a more satisfactory means of producing the desired effects the authors carried out experiments with physostigmine. The effort was made to throw light particularly on the following problems: (1) the behavior of the various portions of the alimentary canal under the effect of physostigmine (2) the duration of the effect exerted by the drug on the stomach and intestines (3) the optimal dosage for use as an aid in the roentgen diagnosis of lesions of the gastro intestinal tract (4) the comparative effects of the oral and subcutaneous administration of the drug and (5) the action of the drug in the presence of various pathological conditions involving the gastro intestinal tract

Observations were made both on animals and on human beings and the procedures used and the results obtained are reported in detail

It was found that physostigmine is a valuable agent for increasing peristalsis heightening the tonus of the alimentary canal and overcoming spasm of the stomach. The desired results may be produced without dangerous toxic manifestations. Atropine is an antidote which offsets any untoward symptoms which may occasionally develop. The effects of the drug are practically the same after its oral and its subcutaneous administration. The optimal dose appears to be 1/25 gr. given orally. The effect of this dose is sufficiently prolonged to permit adequate roentgenoscopy and the making of roentgenograms. The drug may be used as a diagnostic aid without interference with the routine roentgen ray studies of the alimentary canal. In cases of peptic ulcer carcinoma of the stomach and marked atonicity it was found of great assistance in showing the site and extent of the lesion. In several doubtful cases it was a valuable aid in ruling out the presence of a pathological process.

The contra indications to the use of physostigmine are the presence of an inflammatory process such as appendicitis or peritonitis, severe cardiac disease, pregnancy and intestinal obstruction.

ADOLPH HARTUNG M D

Ivy A C, Droegemueller E H and Meyer J L
The Effect of Experimental Pyloric Stenosis on Gastric Secretion. *Arch Int Med* 1927 1: 434

The authors studied the effect of pyloric obstruction on gastric secretion in twelve dogs. In all of the animals a Pawlow pouch was made. Stenosis was produced by forming a band about the pyloric sphincter. The degree of stenosis obtained was ascertained by determining fluoroscopically the emptying time before and after the production of the stenosis. The experiments showed that at first there is a decrease of gastric secretion following pyloric obstruction. In four of the dogs pyloric stenosis caused a hypernormal secretion but not an acidity.

This finding confirms the observations of Hambruger and Friedman that in some cases experi-

mental pyloric obstruction causes a hypernormal secretion of gastric juice. The Pawlow pouches must reflect the secretory activity of the stomach.

The authors explain the effect of pyloric stenosis as follows:

1 The gastric retention prolongs mechanical distention and chemical contact.

2 The more complete the hydrolysis in the stomach the greater is the effect of the chyme in the intestine and the more easily are the hydrolytic products in the chyme digested by the pancreatic juice. As a result the intestinal phase of gastric secretion is augmented.

3 As the chyme is more acid more acid stimulation of gastric secretion results and more pancreatic juice is secreted.

4 The slow ejection of chyme from the stomach prolongs the contact in the intestine. The gastric factors are more important than the intestinal. The stenosis also increases the irritability of the local secretory mechanism in the stomach.

Very striking findings are marked hypertrophy and dilatation of the stomach.

HERMAN H HUBER M D

Faber K. Chronic Gastritis. Its Relation to Achylia and Ulcer. *Lancet* 1927 cc iii 90

The stomach may be injured by toxic agents in the blood stream and by agents acting directly on the mucous membrane. The pathological phenomena of gastritis are of two kinds: (1) disturbances of secretion resulting from diffuse lesions of the glandular parenchyma and (2) surface lesions, erosions and ulcerations.

The origin of achylia must therefore be sought in gastritis and that of juxtapyloric ulcers in pyloric gastritis.

SAMUEL KAHN M D

Andresen A F R. The Treatment of Gastric Hemorrhage. *J Am M Soc* 1927 lxxix 1307

The treatment of gastric hemorrhage is based on the following principles:

1 Enforced rest—physical, mental and gastric.
2 Measures favoring coagulation of the blood at the site of the hemorrhage.

3 Cautious restoration of the blood volume.
4 The treatment or prevention of shock.
5 The use of a soothing, non stimulating diet which combines readily with the gastric juice satisfies thirst and favors coagulation.

6 A complete study of the patient to determine the cause of the hemorrhage in order that suitable treatment may be instituted.

7 The avoidance of surgery during or soon after the hemorrhage.

SAMUEL KAHN M D

Mason J T. Peptic Ulcer. *Northwest Med* 1927 xvi 489

In 500 cases with gastric symptoms a diagnosis of organic lesion of the stomach or duodenum was made in 1 in every 7. Of those believed to be cases of gastric or duodenal ulcer only 1 in 3 was operated

diseased that a posterior Pylor was done. In three cases the stump of the stomach was united to the side of the duodenum according to the Finney-Haber technique. In ten cases the operation was performed according to the modified Billroth I technique described. It seems better to mobilize the stomach and suture it to the end of the duodenum than to do an extensive mobilization of the duodenum where there are many important structures and the nerve supply is abundant and complicated. Usually the same type of operation can be done also when the ulcer is situated at about the middle of the stomach. If the lesion is along the lesser curvature of the middle of the stomach and if it is not large a V shaped section may be removed but a mid gastric or sleeve resection of the stomach gives a better functional result than a V shaped resection particularly if the latter is rather extensive. Unless the lesion is too near the cardiac end of the stomach Horsley is more and more inclined to do a partial gastrectomy after the modified Billroth I operation when resection is indicated for gastric ulcer.

If a gastric ulcer is removed by local excision a pyloroplasty should be done in addition to give physiological rest by lessening the resistance at the pylorus. If for any reason the modified Billroth I operation cannot be done the Hofmeister type of Billroth II operation is satisfactory.

In cases of duodenal ulcer the problem is quite different. If the ulcer is small not infiltrating and near the pylorus a pyloroplasty with excision of the ulcer is the ideal operation. In the pyloroplasty that Horsley has been performing for several years the incision should never be made further than 1 in into the duodenum but should always be at least twice as long in the stomach as in the duodenum. In this manner the muscle fibers of the strong pyloric canal which is 1 1/4 in in length are divided and physiological rest is given the tissues in this neighborhood. In cases of marked pylorospasm it may be well in addition to follow the procedure of Hughson severing the branches of the vagus nerve along the lesser curvature of the stomach as close to the esophagus as possible.

If the peptic ulcer is further down than the first inch it may be excised as Judd advocates and sutured in a transverse incision. A small pyloroplasty to weaken the pyloric end of the gastric muscles may be done in addition but is not always necessary.

When a duodenal ulcer is extensive and when there are marked adhesions a pyloroplasty of the type described is contraindicated. This pyloroplasty is contraindicated also when there is a strong stenosis but may be used in a very narrow band of stenosis. The pyloroplasty of Finney is more applicable in the presence of adhesions or stenosis but when these are very marked suturing of the diseased tissue is unsatisfactory and a posterior gastroenterostomy will doubtless be better. The held for this physiological pyloroplasty is comparatively limited though definite. Horsley is perform-

ing the operation in fewer cases now than formerly. Since he has ceased suturing the pyloric mucosa his results have been much more satisfactory. If there is marked stenosis or an extensive duodenal ulcer or if there are numerous adhesions a posterior gastroenterostomy is satisfactory. Horsley combines this operation with occlusion of the stomach effected by passing a stout kangaroo tendon round the pyloric end close to the pylorus and tying it just snugly enough to close the lumen but not so tightly as to cause permanent whitening of the tissue.

In peptic ulcer of the jejunum the best treatment is partial gastrectomy with removal of a considerable portion of the acid secreting part of the stomach. There seems to be no reason for merely excising the ulcer and reestablishing the gastroenterostomy.

In conclusion Horsley states that the selection of the proper operation for peptic ulcer depends upon a careful study of the case and of the condition found when the abdomen is opened. In all operative cases postoperative medical treatment should be given by an internist or gastroenterologist for several months. CARL R. STEINKAMP, M.D.

Butler H. B. A Case of Complete Gastrectomy for Chronic Ulcer with Observations on the Effect of the Loss of the Stomach on the Physiology of Digestion in Man. *B. J. S. G.* 1921, xv, 310.

The patient whose case is reported was a man 42 years of age who had been given medical treatment for a chronic gastric ulcer of 4 years duration. He appeared to make a complete recovery but 8 months later the symptoms recurred and when medical treatment was again instituted it failed to give relief.

On his admission to the hospital the patient was weak and emaciated and the roentgen ray revealed an ulcerous crater high up on the stomach. No hour glass constriction, stenosis or obstruction was found. The findings of the blood examination were: erythrocytes 3,200,000; hemoglobin 75 per cent; color index 1; leucocytes 6,560 (polymorpho-nuclears 75 per cent, small lymphocytes 14 per cent, large lymphocytes 9 per cent, eosinophiles 20 per cent). The fractional test meal gave low values for both free and combined acid.

Because of the possibility of carcinoma and the lack of response to medical treatment surgical treatment was regarded as advisable. Operation revealed a large indurated ulcer high up on the posterior wall of the stomach near the cardia. As the condition seemed to be carcinomatous the entire stomach was resected and an anastomosis was made between the esophagus and jejunum by Moynihan's technique.

Pathological examination proved the lesion to be a chronic ulcer with catarrhal changes in the mucosa.

The patient made a good recovery and 4 months later had gained nearly 4 lbs and was feeling well. He was advised to have his teeth extracted in order to remove all possible foci of infection and was put

on 1 dr of dilute hydrochloric acid 3 times a day to remove the causes (infection and achlorhydria) predisposing to the Addisonian anemia which may occur after complete gastrectomy.

Six months after the operation he was examined with regard to the function of the intestinal canal. The stool showed a slight excess of fat (as split fat) but was otherwise normal. The jejunal loop which was used for the anastomosis had dilated and appeared to have taken on the function of the stomach to a certain extent that it is held food for a considerable length of time. Food taken into the jejunum set up a brisk reaction in the ileocecal. The contents of the jejunum showed a few colonies of bacillus coli streptococci and staphylococci. The bowels moved without cathartics once daily and the patient had normal hunger and appetite.

The findings of the blood examination were erythrocytes 5,433,000; hemoglobin 90 per cent; color index 0.9; leucocytes 7,500 (polymorpho-nuclears 67 per cent, small lymphocytes 9 per cent, large lymphocytes per cent, eosinophiles per cent, transitionals per cent).

MICHELLE L. MASON, M.D.

Perdoux and Gadenat. Acute Intussusception in the Adult (J. G. T. T. J. H. L. d. L.) B. H. T. E. S. T. D. J. 97198

The case reported was that of a woman 50 years of age who was seized with sudden abdominal pain about one hour after a light meal. The pain was induced vomiting and although the patient had been constipated for several days preceding the attack a copious evacuation of the bowels occurred. Thereafter neither fecal matter nor gas was passed per rectum. The general condition remained good.

At examination an enlarged mass was felt in the left iliac fossa. This disappeared from time to time and was thought to be a spastic sigmoid flex as applied to the abdomen.

The next day the general condition was still good but no stool had been passed and the mass was constant. A diagnosis of volvulus was made. On the patient's admission to the hospital a vaginal examination revealed a pelvic mass which seemed to be an ovarian cyst situated in its pedicle.

At operation an intussusception of the small bowel was found near the termination of the ileum. Resection followed by side to side anastomosis was done. No cause for the condition (tumor, inflammation or Meckel's diverticulum) could be found. Except for a history of salpingitis no history of previous abdominal trouble could be obtained. Such cases are usually not diagnosed before operation.

MICHELLE L. MASON, M.D.

Judd E. S. Duodenal Ulcer. N. H. T. M. D. 197482

During the last few years the author has become more and more impressed by the fact that duodenal and gastric ulcer are two separate and distinct

lesions. In a certain proportion of cases the two lesions occur simultaneously. In about the same proportion gastric cancer and duodenal ulcer occur simultaneously but these two lesions are entirely different. It is not surprising that we have fallen into the habit of considering duodenal and gastric ulcer together as it is only recently that the identity of duodenal ulcer has been recognized.

Some years ago Judd noted that duodenal ulcers are not all of the same ulcer type. On further investigation he found that there are at least two distinct lesions, either one of which may be found in cases with a history of chronic peptic ulcer. The first is the true ulcer, which is characterized by congestion and tipping of the surface of the serosa with the formation of more or less scar tissue adhesions and deformity of the duodenum. When the intestine is opened a crater ulcer is seen. The second type of lesion called duodenitis or submucous ulcer is one in which there is congestion and tipping of the serosa but little or no duration. Palpation of the duodenum is negative and when the bowel is opened a lesion of the mucosa can not be found or at most only one or more superficial small mucosal abrasions are revealed.

The indications for operation in cases of chronic dyspepsia due to ulcer of the duodenum depend upon several factors. The length of time the symptoms have been noted should be considered if the symptoms have been present for a long time and especially if the patient has had several periods of good dietary management without relief operation should not be postponed. If the symptoms have been present for only a short time non-surgical treatment should be instituted at once as there is plenty of evidence to show that dietary management started before the condition becomes chronic may result in complete relief of symptoms and the healing of the ulcer. The age of the patient should be taken into consideration; a young person with a short history and mild symptoms should be placed on a dietary regimen for a considerable period. In a young case the severity of the symptoms will help to determine the plan to follow because if there is a constant tendency toward perforation, bleeding or severe gastric disturbances not quickly relieved by diet operation is indicated. In all cases of duodenal ulcer diet should be tried before operation is considered. It is a mistake however to continue dietary treatment if nothing is being accomplished by it and if the symptoms return following the least indiscretion.

About 65 per cent of the patients with duodenal ulcer who enter the Mayo Clinic undergo operation. Many duodenal ulcers even though chronic run a mild uncomplicated course so that the patient may be treated medically with the idea of eventually resorting to operation if the result of the non-surgical treatment or the co-operation of the patient is unsatisfactory. Duodenal ulcer is a common lesion. Between 1,000 and 1,500 patients thus afflicted are seen in the Mayo Clinic every year.

In Judd's opinion the present enthusiasm for resecting the stomach for duodenal ulcer will not last very long. Gastroenterostomy is not an entirely satisfactory procedure because in a certain percentage of cases it is followed by secondary ulcers. The best type of operation for duodenal ulcer is one that removes the ulcer and places the pyloric sphincter at rest.

Leriche R. The Result After Fourteen Years of a Right Hemicolectomy for Fecal Stasis (L'écrit cloigné (quatorze ans) l'ue h m c le tom j r te pour stase fécale) Bull t n c So t d) 1927 lnn 828

Leriche reports the following case to emphasize a complication of laterolateral anastomosis in colectomy and the small value of colectomy for fecal stasis.

The patient was a woman aged twenty nine years who had had digestive disturbances for seven years and was nervous and poorly nourished. She complained especially of discomfort in the right iliac fossa. Physical examination revealed a flaccid gurgling cæcum. On roentgenoscopy the stomach was seen to be tonic and without retention.

At operation the cæcum was found to be large and flaccid and covered by a typical peritoceal membrane extending to the right flexure. The appendix was removed and the cæcum decreased by half by plication and fixed to the abdominal wall.

After the operation the patient continued to complain but gained 8 kilos. Nine months later she reported marked epigastric discomfort and the X ray showed the bismuth meal to be retained in the cæcum for twenty four hours. At a second operation the greatly distended cæcum, the ascending colon and the transverse colon were resected and a laterolateral ileosigmoidostomy with a button was done. Later an intraperitoneal abscess was drained through a small incision lateral to the healed operative scar. After one month the patient returned home greatly benefited.

Ten years later she reported that for nine years she had suffered from constipation and occasional attacks of acute enteritis with diarrhoea, cramping and burning, and for six years had had a continuous painful sensation in the right flank with a prominence under the abdominal wall that could be reduced by gentle massage. On X ray examination bismuth did not enter and the left colon was not distended.

Operation under spinal anesthesia revealed in the right iliac fossa a gaseous pocket as large as a toy balloon covered by what appeared to be a congenital membrane with parallel vessels. The membrane was lifted away without difficulty. The gas pocket was the terminal cul de sac of the lateral anastomosed loop of small intestine which had distended greatly and contained only gas. The gas pocket was incised and the sac resected.

The patient recovered from the operation and was somewhat relieved but constipation, digestive

disturbances and neurasthenia persisted. Three years later her condition was reported unchanged.

Before 1914 Leriche performed hemicolectomy phreatic and anastomoses of different types for stasis but failed to obtain a successful result in any case in which the intestinal disturbance was not purely mechanical. All of the patients who were followed slowly relapsed. After plication of the cæcum the ascending and transverse colon dilated. Antiperistaltic is destroyed the results of an anastomosis or a colectomy.

Leriche advises leaving such cases alone until it has been determined why the mesentery is not fastened why the intestine sometimes distends without contracting and what digestive gland insufficiency or other factors regulate such phenomena. He believes that fecal stasis is a secondary functional disease the cause of which is outside the intestinal wall.

WALTER C BURKET M.D.

Botreau Roussel and Cadenat. Ileal Intussusception in the Adult Caused by a Submucous Fibroleiomyoma. Resection and End to End Anastomosis. Cure (In agnation ileo ileale de l'adulte produite par un filro leiomyome us muqueux guéri) Bull et mém Soc nat de M 1927 lnn 921

The case reported in this article is the seventh case of intussusception in the adult reported by Botreau Roussel. The patient a man 23 years of age was sent to the hospital with the diagnosis of intestinal obstruction. He appeared toxic and had been suffering from abdominal pain for 5 days during which time neither gas nor fecal matter had been passed. The abdomen was soft and without signs of fluid. On the right side slight peristaltic movements were noted and a semi soft tumor appeared and disappeared from time to time. A diagnosis of ileal intussusception was made.

At operation a 40 cm portion of the lower ileum was found to be invaginated but was easily disengaged. A tumor the size of a duck egg was felt. The intestines were violently peristaltic and the invagination was reproduced. The 18 in segment of bowel involved by the tumor was resected and an end to end anastomosis performed.

The postoperative course was uneventful. The ovoid tumor which measured 9 by 6 cm and completely filled the lumen of the bowel was attached by a circular base to the contra mesenteric border of the intestine. Histological study showed it to be a fibroleiomyoma.

It was subsequently learned from the patient that he had had vague intermittent intestinal complaints for a year before the operation and attacks of constipation alternating with diarrhoea for about 3 months.

Intussusception appears to be the most common benign tumors of the small intestine. Next in frequency are the myomata. Most of them are submucous but some are subserous. The subserous tumors may never cause symptoms until they attain considerable

size Submucous tumors give rise to vague dyspeptic symptoms ill defined abdominal pain distention alternating periods of constipation and diarrhoea and sometimes hæmorrhage These benign tumors are never diagnosed before operation

Micr L Ma V MD

Pratt J P and Fall S L S Volvulus of the Cæcum J I W I)

Volvulus of the cæcum occurs only in the presence of some condition due to defect of development such as persistence of the mesenteric of the cæcum and ascending colon or rotation with fixation of the cæcum and the liver or rotation of the large intestine behind the upper mesenteric vessels and duodenum the mesenteric of the small intestine forming a tunnel through which the transverse colon passes and the persistence of the mesenteric of the ileocolic segment permits mobility ranging from simple cæcum mobilization to the persistence of the cæcum in its original place as the plicæ flexure All forms predispose to volvulus The cause of the occurrence of volvulus is directly proportional to the length of the mesentery upon which the cæcum hangs

In the majority of cases the condition occurs during young adult life the period of greatest activity It is more common in males than in females Overeating and other dietetic indiscretions especially when followed by exercise play a prominent rôle in the etiology Abnormal peristaltic activity set up by abuse of the digestive tract act in a minor manner Five or six percent of intestinal obstructions are due to volvulus of the cæcum

The symptoms may be cut without without obstruction partial or complete The pathological changes found at operation or autopsy vary from simple to more complete gangrene of the bowel The basis for the changes is the obstruction of the blood supply and the disturbance of the

Raboni G Empyema in Auto Amputated Appendixes After Appendectomy (Empyema appendicis) J I W I)

The author reports the cases of three patients upon whom he operated after a considerable interval of time following an attack of acute appendicitis and after the patients seemed to have recovered completely In all three cases he found that auto amputation of the appendix had taken place and pus had collected in the closed stump

He thinks it very probable that these suppurations are a continuation in a latent form of the septic process which had caused the auto amputation of the appendix Though there is no clinical suggestion to indicate that the empyema of the stump is dangerous or harmful he is of the opinion that such suppurations are dangerous as they may rupture and cause a diffuse or recurrent peritonitis The experience in operation shows auto amputation of an appendix to be removable the stump

V I G M MD

LIVER GALL BLADDER PANCREAS AND SPLEEN

Shaw M C and Rontree L G Disease of the Liver and Further Study in Experimental Obstructive Jaundice J I W I)

The studies reported in this article were made on fifteen dogs The animals were divided into two groups the first in which the common bile duct had been ligated and the second in which cholecystectomy had been performed and the ligature on the common bile duct removed The results of the experiments are reported in detail in the article The results of the experiments were made before the operation and at intervals of from one to three days during the period following biliary obstruction In two animals the attempt was made to relieve the obstruction by a surgical procedure but the course of the disease was not

varied with the duration of the obstruction. With obstruction lasting thirty days or longer there was no immediate change in the degree of bilirubinemia after the relief of the obstruction. Spontaneous closing of the fistula made it possible to study the effect of long continued drainage in such cases.

The changes in the bromsulphalein test were qualitatively the same as those previously reported for the phenoltetrachlorophthalein test. Retention of bromsulphalein in the blood stream of the dogs was not observed until the second or third day following ligation of the common bile duct. The development of distinct retention usually coincided with the first definite appearance of bilirubin in the blood, both occurring from forty-eight to seventy-two hours after the operation. The amount of retention gradually increased the maximal value being reached the second week. Thereafter the degree to which the bromsulphalein was retained in the blood stream fluctuated somewhat but in general there was marked and persistent retention of the dye.

When the gall bladder was removed at the time of the ligation of the common bile duct retention of the dye was found within twenty-four hours after the operation. Here too a close parallelism with the degree of retention of bile was observed. The subsequent course of the two series of animals was identical. Retention of the dye persisted following cholecystenterostomy and reestablishment of biliary drainage.

The bile acids in the blood increased markedly after the production of biliary obstruction. Following ligation of the common bile duct alone this increase was not marked until the second or third day. Maximal values were attained about the second week after obstruction. When the gall bladder was removed at the time of ligation of the common duct the changes in the bile acid reading developed much more rapidly. The increase was marked during the first hour. The amount of retention in the blood gradually became greater, maximal value being attained at the end of the first week. Thereafter there was a gradual return toward normal.

The authors had previously measured the normal rate of removal of injected bile acids from the blood. Comparison of the rates before and after ligation of the common duct showed that bile acid were not only markedly increased by this measure but were also removed at a much slower rate than under normal conditions.

In discussing their results the authors point out that a decrease in the concentration of bilirubin in the blood (in the later stage) is not due to increased renal elimination since less bilirubin is excreted in the urine in obstructive jaundice. They are of the opinion that the production of bilirubin is decreased in consequence of prolonged obstruction and refer to the clinical analogy provided by obstructive jaundice of short duration (as from pancreatic carcinoma) and of long duration (as from stone in the common duct).

The authors agree with other investigators that only a small fraction of the normal amount of bile acids is synthesized by animals with obstructive jaundice. When bile acids are injected after obstruction of the normal pathway of excretion they leave the blood at a much slower rate than normally.

In all of the dogs that survived more than a few weeks biliary cirrhosis developed. Attempts made to relieve the biliary obstruction by cholecystenterostomy after the first month brought no improvement in the bromsulphalein test of function. The serum bilirubin was little affected by this operation but the content of bile acids rapidly returned toward normal when the obstruction was relieved.

The authors discuss the ascites manifested by two of their animals and cite various explanations of the portal obstruction. The ascites is related to the wide preportal proliferation of connective tissue around the biliary radicle in the portal spaces. The same pathological sequence is observed in man.

Whipple A O. Side Tracking Operations for Bile Duct Obstruction. *Ann. Surg.* 9: 188, 1940

In cases of irremovable duct obstruction or irreparable duct injury palliation may be obtained by a side tracking operation to carry the bile into the upper gastrointestinal tract. The main types of lesions in which such a procedure is indicated are (1) new growths of the pancreas or of the common or hepatic duct, (2) chronic inflammatory lesion of the pancreas, and (3) stenosis of the ducts following trauma or inflammation. The following operative method have given good results.

1. Anastomosis between the gall bladder and duodenum or stomach. This is the easiest and most satisfactory of all procedures provided the cystic duct is patent and the obstruction is in the common duct below its junction with the cystic duct. In carcinoma it gives temporary relief and in chronic pancreatitis it results in remarkable improvement for many years.

2. Some form of anastomosis is between the common or hepatic duct and the upper gastrointestinal tract. Choledochenterostomy or hepatico-enterostomy or duct reconstruction is to be employed when the gall bladder is absent or the obstruction is above the level of the cystic duct. The lesions requiring these procedures are usually duct stenoses due to injury during cholecystectomy or the result of cholelithiasis. If operative injury to the duct is immediately recognized and end anastomosis is usually easy and stenosis seldom occurs. When such an injury is not recognized at once and there is no biliary fistula a suture anastomosis between the distended duct and the duodenum without the use of a tube is the procedure of choice. If a tube must be used only a partial suture being feasible the tube should not be sutured into the line of anastomosis if it projects for any distance into the duodenum. Attempts to reconstruct a passage between the hepatic duct and the duodenum by means of tubes are seldom permanently satisfactory.

If the patient has an old biliary fistula and especially if previous attempts to re-establish a bile passage have been made the possibility of implanting the external opening of the fistula into the stomach and duodenum must be considered. This has been done successfully in a number of cases. Hepato enterostomy in which the duodenum or jejunum is sutured to an incision or cautery puncture of the liver has been done but its value is open to doubt.

Whipple reports several cases of side tracking operations.

CHESTER L. CREAN M.D.

Barnes E. L. Acute Pancreatitis Due to a Gall Stone Obstructing the Duct of Wirsung. Report of a Case. *T. St. L. J. W.* 92 33

When there is a common outlet for the bile and pancreatic ducts acute pancreatitis may be brought on by blockage of the duct of Wirsung allowing the passage of infected bile to the pancreas. It may be caused also by simple obstruction of the pancreatic outlet, but under these circumstances the condition is probably more of a chemical nature. Other routes of infection of the pancreas are the blood stream and lymph channels, but the latter is questionable.

The author reports a case in which a gall stone obstructed a duct common to the liver and pancreas and caused a flow of bile into the pancreas which resulted in rapid pancreatic necrosis. The patient suffered severely from acute abdominal symptoms but recovered after a laparotomy and the later discharge of a gall stone through the drainage opening.

MARCUS H. HOFART M.D.

MISCELLANEOUS

Hertzle A. E. Acute Abdominal Disorders. *Am. J. St. S.* 19 7 11 346

Acute abdominal disorders requiring surgical intervention may be divided into two groups: (1) the perforative group including diseases or trauma of hollow viscera such as the stomach, duodenum, appendix, gall bladder and intestines; and (2) the thrombotic group in which there is no solution of continuity of the visceral wall resulting in an acute general peritonitis such as obtains in the first group, but there is injury to the wall due to disturbance of the circulation. The thrombotic group includes such conditions as acute pancreatitis, intestinal obstruction, thrombosis of the mesentery, tumors with twisted pedicles, hemorrhage into a cyst or tumor, and gangrene of the appendix.

In the perforative group of conditions the initial pain is due to the irritation of the bowel wall and peritoneum by the escaped contents. The peritonitis appears later and then dominates the picture. In the thrombotic group the pain is due to the presence of clotted blood; it is the pain of dying tissue. Profound constitutional disturbance is the chief factor in pancreatic intestinal obstruction, and any injury in which extravasated blood plays a part. In general the point of maximal pain at the outset indicates the site of the disease.

Abdominal crises must be differentiated from extra-abdominal affections and milder intraperitoneal affections. The best clinical observation possible must be supplemented by observations made after the abdomen is open.

CHARLES F. DUBOIS M.D.

GYNECOLOGY

UTERUS

Haselhorst G. Is Hysterography a Safe Method of Examination? (Ist die Hysterographie eine un gefährliche Untersuchungsmethode?) *Zentralbl f Gynaek* 19 7 h 1821

The belief that hysterosalpingography is not an entirely harmless procedure has been supported by two cases recently seen by the author. The first case was that of a twenty-two year old girl with retroflexion of the uterus and a tumor the size of a child's head. At the time of the patient's admission to the hospital her temperature was 37.6 degrees C and a smear from the cervix and urethra was negative for gonococci. Following an examination in which the uterus was injected under light pressure and strict asepsis with 40 per cent iodipin from a Luer syringe there was increasing abdominal pain with slight bleeding and an increase in the temperature to 39.7 degrees C. Laparotomy disclosed a condition of aseptic irritation and a small quantity of exudate which on culture proved sterile.

The second case was that of a woman twenty-two years old who came for artificial abortion in the second month of pregnancy. Within three days after hysterography the temperature rose to 39.8 degrees C. On the fifth day there were hemorrhages and a fever of 40.5 degrees C. After the expulsion of a fetus 6 cm long and a foul smelling placenta the temperature dropped to 37 degrees C. In sections of the tissue collections of Gram positive cocci and bacilli were found.

The author believes that the severe irritation in the first patient and the abortion of the second were due to the injection of iodipin.

In conclusion the author states that latent foci and bacteria in the cervix, uterus or tubes cannot be demonstrated with certainty in advance by any method as yet known. OBSTETRIC (G)

Keller R. Unusual Forms of Parametrial Suppuration (Paramétrites suppurrées à évolution particulière) *Gynécologie* 1927 11 1 387

The author reports seven cases of parametrial abscess.

As a rule parametrial involvement develops early. During the first few days after delivery a vague infiltration may be palpated on one side of the uterus. This evolves into an abscess which is often voluminous and in which fluctuation is easily detected. The formation of the abscess may be rapid but usually requires several weeks or months.

The elevation of temperature is usually moderate. When the infection is due to the bacillus coli there may be no fever at all. For some unexplained reason the lesion occurs more frequently on the

right than the left side. In five of the cases reviewed the abscess was in intimate contact with the pelvic bones and tended to approach the iliac crest.

The complications included perforation of the bladder, rectum and coxofemoral joint. The perforation into the coxofemoral joint was first discovered at autopsy. In one case there was thrombosis of the pelvic veins about the abscess and the right femoral vein.

If the cases are treated reasonably early the prognosis is quite good although an average of four months is needed for recovery.

The treatment indicated is drainage. The author always waits for the development of fluctuation. In the cases reviewed the abscess was opened by an abdominal incision. ALBERT I. DICKER, M.D.

Rugano Irrera D. Three Cases of Sarcoma Developing in a Fibromyoma of the Body of the Uterus (Tre casi di sarco ma sviluppato in fibromioma del corpo dell'utero) *Arch Ital di chir* 19 7 VIII 538

The author describes the histological pictures of three uterine sarcomata and supplements his description with photomicrographs. From these pictures and a review of the literature he concluded that the sarcomata developed in fibromyomata. He believes that malignant degeneration of pre-existing tissue cell is not possible and that the sarcomata originated from rests of undifferentiated cells seated in the fibromyomata which were of the same kind as those that had given rise to the fibromyomata and that under the influence of hyalinization or some unknown cause these undifferentiated cells began to multiply indefinitely in an atypical way with destructive characteristics.

AUDREY G. MORGAN, M.D.

Bouquet P. Malignant Cancer of the Body of the Uterus Probably Spread from Cancer of the Cervix (Cancer du corps utérin du type malignien d'origine probable d'un cancer du col) *Lyon chir* 1927 11 1 408

Challenging the assumption that cancerous involvement of the cervix is invariably secondary to cancer of the body of the uterus, Bouquet reports the following case.

After metrorrhagia persisting for eleven days in a sixty-two year old multipara a diagnosis of cervical cancer was made. Since there was no appreciable invasion of the parametrium the condition was deemed operable but at the last moment radium treatment was given instead. The clinical results were excellent for three months. At the end of that time renewed hemorrhages led the patient to insist upon operation. A preliminary digital examination

used freely. Radiation is not begun until disinfection is complete and the general condition has been improved by dietetic and hygienic methods.

A biopsy specimen is taken from all lesions as the author believes that no harm results when the specimen is removed from the ulcerated area. Also in all cases thorough physical and X-ray examinations of the chest, spine and pelvis are made.

At the outset a definite plan of treatment is adopted. This depends first upon whether only palliation of the local or metastatic lesion is possible, whether a recurrence is present in the vagina and whether the condition is in such an early stage that a permanent cure is possible.

In all cases deep X-ray therapy is used over the pelvis. The author discusses the dosage in detail. The depth dose delivered to the lesion is 60 to 75 per cent. As Bellevue Hospital owns no radium, it obtains emanation upon prescription for cases in which the histopathology, the amount of involvement and the patency of the uterine canal are all favorable for the use of radium.

In the cases reviewed the most common lesion found was the plexiform epithelioma, a transitional form between the basal and the squamous types.

The dose varies according to the amount of local involvement from 4,000 to 7,000 mc hrs. Lesions limited to the cervix receive 4,500 mc hrs. Half in the cervical canal and half in the vagina. The applicator used is a modified form of the colpostat designed and used at the Curie Institute in Paris. One millimeter of platinum and 2 mm platinum screens are used respectively in the intra-uterine and vaginal applicators. A thin sheet of aluminum is wrapped about the platinum. The technique of application and the variations in dosage are given in detail.

The irradiation is continued for from four to seven days, the applicators being removed, cleansed and replaced daily. Fluids are given copiously to prevent radiation sickness. Codeine is administered if there is pain. Obstructing masses are treated with seeds or needles or are removed by endothermy, the intra-uterine irradiation being given later. The patient is kept in bed during the treatment. If the temperature rises above 10 degrees C, the irradiation is stopped temporarily.

As this treatment was begun only two years ago it is still too soon to report the results, but the author includes in his article several tables giving the symptoms, a description of the lesion, the patient's present condition and the mortality. He summarizes the main points in his article as follows:

1. Carcinoma of the cervix is not operated upon at Bellevue Hospital.

2. Biopsy is done in every case.

3. The lesion is treated by (a) disinfection of the local area, (b) X-ray therapy of the pelvis, (c) radium therapy of the local lesion and (d) radium puncture and endothermic surgery when necessary.

4. The dosage varies with the histological nature and the extent of the lesion.

5. The treatment is given at once with small doses over long periods of time.

6. High voltage X-rays with heavy filtration and radium emanation in heavily filtered platinum tubes are employed for the specific radiation therapy.

A. JAMES LAFKIN, M.D.

Devere L. The Dangers of Radium Irradiation in the Treatment of Uterine Cancers (Les risques de la curietherapie dans le traitement des cancers uterins) *Bull. Soc. d'et. et de gynéc. de Par.* 1917, xv, 49.

Although he recognizes the value of radium therapy in the treatment of carcinoma of the uterus, the author believes that in operable cases its results are inferior to those of radical hysterectomy. He has found moreover that the use of radium is not entirely harmless as it may be followed by unfavorable local and distant reactions. The general reactions consist in an elevation of the temperature to as high as 39 degrees C. for three or four days, the result of the absorption of toxins from the neoplastic tissue and disintegrated cells and the retention of septic exudate within the uterus due to obstruction caused by the radium. There may be diarrhoea for several days. Frequently headache, nausea and vomiting result from the radium shock.

The local or regional manifestations are bladder and rectal irritation. This is usually evanescent but the author has known of cases in which proctitis with a bloody mucous discharge persisted for over a year. The ulceration observed in the vaginal wall involves only the mucosa. Perforations of the rectovaginal or vesicovaginal septa occur only in very advanced cases in which radium is contra-indicated. Infection of the uterus may extend to the adnexa or peritoneum and lead to a fatal peritonitis.

The distant reactions are for the most part effects on the blood. There is usually a leucocytosis followed by a leucopenia. Large doses of radium may cause a diminution in the number of leucocytes and a secondary anemia. In several cases reported in the literature and in four cases seen by Devere, radium treatment was followed by embolism.

LEO M. ZIMMERMAN, M.D.

Piccarro T. J. Wertheim's Operation in the Treatment of Cancer of the Cervix (La operación de Wertheim en el tratamiento del cáncer cervicouterino) *Semin. med.* 1927, xiv, 333.

This article is based on seventy-three cases of cancer of the uterine cervix which were operated upon in the period from 1917 to 1927. The case histories are given and the technique of the operation is described in detail with illustrations of each step. The technique was that of the Wertheim operation, but special precautions were observed to prevent infection. Such precautions are particularly important because this operation opens up large areas of tissue to infection.

A preliminary step adopted to prevent infection was curettage and cauterization of the tumor. The

cervix was curetted with a Simon cutting curette and the cavity cauterized. This not only rendered the cervix aseptic but hardened and dried it. Wertheim clamps were then applied to prevent contact of the diseased cervix with the operative wound and the cervix was removed as a closed vessel.

Another special point was the use of a retractor with a double curve to protect the ureters in the different step of the operation. This retractor is shown in an illustration.

Radium may be used from ten to twenty five days before the operation when it is indicated. It does not render the operation any more difficult and it contributes to the immediate success of operative treatment. It is indicated to reduce the size of cancers that are slightly beyond the limit of operability, to bring about hamostasis in hemorrhage to effect sterilization in febrile cases and to stimulate in cases with anæmia.

The operative accidents in the cervix are included laceration of the vagina or the supra vaginal part of the cervix in a few cases injury of the bladder in two cases and section of the ureters in two cases. Among the postoperative complications were mild bladder fistulas, haematoma in three cases eventrating on in two cases and ureter fistula in two cases. One ureteral fistula closed spontaneously.

In the seventy three cases there were eight deaths a mortality of 0.00 per cent. One death was due to paralytic ileus. The causes of death were paralytic ileus, internal hemorrhage, glycosuria and anæmia in one case each and postoperative shock in four cases. In the author's opinion the death from glycosuria and the death from anæmia were not due to the operation. The operative mortality was therefore 0.08 per cent. Infection occurred in only one case—the case of death from paralytic ileus. In the other cases the immediate results were good. In the last thirty two cases there were no deaths.

Upp G M R M D

Mason J C Total versus Subtotal Abdominal Hysterectomy 1 J Obst & G 97 486

In recent years the more general adoption of total abdominal hysterectomy has been strongly advocated by many leading gynecologists but it should be remembered that these men have had a great deal more experience with the operation than most surgeons. In cases treated by surgeons with less experience subtotal hysterectomy is still advisable as a rule.

A comparison of published results is difficult because some surgeons perform total hysterectomy only in uncomplicated cases in which the uterus is freely movable while others frequently do not remove the cervix such cases although they strongly advocate removal of the cervix to avert inflammation.

For cases of fibromyoma myomectomy is preferable to more radical procedures during the child

bearing period. If it is necessary to interfere with child bearing as much of the uterus as possible should be preserved in the hope of maintaining menstruation. Coming out the cervical mucosa and thoroughly destroying it by the free use of the cautery is associated with just as much risk as complete removal of the cervix and does not afford quite the same protection against future trouble. The mortality following either operation should be limited to accidental causes.

ADNEXAL AND PERIUTERINE CONDITIONS

Gaves W P Oalan The py J 4 M Ass 971 38

Advance in ovarian therapy in the past twenty five years has been limited by poor preparation of commercial products and difficulty in extracting the pure hormone. Though not fully specific the ovarian extracts ordinarily employed produce favorable responses in certain deficiency syndromes. The best results are obtained in the control of climacteric symptoms, flashes and vasomotor disturbances are usually relieved. In cases of menstrual deficiency not dependent upon general systemic disease or marked genital hypoplasia resumption of menses in case of the flow result with moderate frequency. In essential dysmenorrhea in nervous girls due to functional uterine spasm and associated with nausea, indigestion, headaches and flashes the pain and concomitant symptoms are frequently relieved by ovarian extract. If uterine hypoplasia is absent sterility due to defective ovulation is also occasionally relieved by ovarian therapy.

The author uses ovarian residue almost exclusively and insures its potency by employing fresh preparations and correct from the manufacturer. Corpus luteum preparations are less stable and occasionally to the absence of follicular elements renders them less potent than extracts from the entire gland.

S UEL A W LFE M D

Lapin M Calculi in the Concretions Probably of Origin in the Uterus or Vagina 1 Calcult (C) 1917 55

Papin reports the case of a 2 year old woman whom he was called to see because of pyuria and renal pain. Guinea pig inoculation of the urine was positive for tuberculosis as was also the specimen from the right ureter alone. The patient had not menstruated for eighteen months.

X-ray examination revealed numerous shadows of calculi but the exact localization of the stones could not be determined. A roentgenogram made with opaque catheters in place (unfortunately the catheter had entered the left ureter for only a short distance) showed the stones in the bladder field but not along the course of the ureters.

Papin concluded that the stones were in the ovaries and correlated this fact with the absence of

menstruation. A right nephrectomy was performed for the tuberculous kidney. Today, three months after the operation, the patient is well.

MICHAEL I. MASON, M.D.

Keene F. E., Paineoast H. K. and Pendergrass E. P. Carcinoma of the Ovary. *J. Am. M. Ass.* 1927 LVIII 1053

The authors report their results in twenty-four cases of carcinoma of the ovary treated with the roentgen ray. All had been previously operated upon as follows: exploratory operation, six; bilateral salpingo-oophorectomy, seven; bilateral salpingo-oophorectomy and hysterectomy, eight; and unilateral salpingo-oophorectomy, three.

Of the six cases in which an exploratory operation was done, ascites and pain were little affected. Five of the patients died within eight months after irradiation and the sixth was rapidly failing five months after the irradiation.

Of the eighteen patients treated by partial or complete excision of the primary growth, only seven are living. Their duration of life since the irradiation has ranged from four months to four years and nine months. Five of them have survived one year or more and are now in excellent health. The duration of life of the eleven who died ranged from two and a half months to forty-eight months. Of the nine who had ascites, seven were benefited by the roentgen ray. Seven of those with ascites died later. Pain was a prominent symptom in eight cases and was relieved in five. Seven of the eight patients with pain died later. Palpable abdominal or pelvic masses were noted in twelve patients, seven of whom died later. In four the masses disappeared, in three they became smaller, and in five they were not changed.

These results demonstrate that little can be expected when the primary growth has not been removed, but in cases of recurrence following removal of the primary growth, irradiation offers a fair prospect for at least temporary relief of symptoms, particularly of pain and ascites. The technique is described.

PHILIP H. ARNOT, M.D.

Novak, E. Ovarian Metastasis with Cancer of the Uterine Body. Is Transubular Implantation an Important Factor? *I. J. Obst. & Gyn.* 1927 LV 470

The material on which this article is based and a review of the literature indicate that the lymphatics constitute by far the most frequent route for the extension of cancer of the body of the uterus to the ovary. This is what would be expected from the knowledge of cancer characteristics in general. Some of the evidence for the spread of corporeal cancer by the lymphatics is summarized by Novak as follows:

1. The lymphatics have been shown to be chiefly responsible for the spread of carcinoma elsewhere.

2. Knowledge of the lymphatic drainage of the uterus explains quite satisfactorily the distribution of the metastases in the ovary as well as elsewhere.

3. Emboli of cancer cells are often found in the lymphatics.

4. Cancer metastasis is often found in the tube with or without ovarian metastasis. It not infrequently occurs in the wall of the tube perhaps without mucous membrane involvement as would be expected if implantation were important.

5. The surface of the ovary is characteristically smooth and uninvolved as would be expected in lymphatic metastasis but not in direct implantation of cancer particles on the surface.

6. The bilateral distribution so common in ovarian carcinoma suggests a lymphatic source rather than implantation.

7. The lymphatic theory rather than implantation explains ovarian metastasis with pyloric cancer, although this problem has not yet been satisfactorily solved.

8. The finding of free cancer particles in the tube in cases of uterine cancer does not justify the conclusion that associated pelvic cancer is caused by implantation of such particles, even in the event of their being regurgitated through the tube. More often these particles are probably moving downward toward the uterus.

9. Sampson's cases of supposed implantation cancer of the ovary are far more logically explained as due to lymphatic dissemination.

10. In view of the demonstrated importance of the lymphatics in the spread of carcinoma, it is not justifiable to attribute the spread of carcinoma to direct implantation unless the lymphatic route has been excluded.

11. Of the seven cases of ovarian metastasis herein reported, six appear to be logically explained by the lymphatic theory, while in the remaining case direct extension may have been the chief factor.

12. A study of cases reported in the literature bears out the impression that the lymphatics are the important route for dissemination.

In the operative removal of the cancerous uterus the prime importance of the lymphatics in the dissemination of cancer cells must be taken into consideration.

The author does not agree with Sampson that preliminary curettage should be avoided except when there is no suspicion of cancer or the patient's condition contra indicates radical procedures. He believes that if such a policy were generally adopted it would inevitably lead to many unnecessary hysterectomies and a certain number of unnecessary deaths.

F. L. CORNFELD, M.D.

EXTERNAL GENITALIA

Peterson, R. Transplantation of the Ureters Into the Bowel to Secure Sphincteric Urinary Control in Incurable Vesicovaginal Fistula. *I. J. Obst. & Gynec.* 1927 VI 492

The author is convinced that extraperitoneal implantation is preferable to intra-abdominal implantation of the ureter since, no matter how careful

the technique of the operation something s lable to go wro g because the procedu e is not l lke ordinary intestinal surgery in hich an accurate tight approximation can be made

If the stab wound too cl ely appro imated to the urete hydro u eter and hydro eph o i with ascending infect on vill r ult lf the es an escape of urine or fac s arou l the ope ing through the mucosa the pati nt wll succumb unle s the pera tio has been p rforme le trape id neally

E traster toneal implantat is no m re hifficult th n intra ab lom al impla tati n

The t nspla tation of b th u eter at th ame operation i ass ci ted th too g at r k nly one ureter houl l be transpl nte l at a time

The dang of r rancy fter t nsplant ion of the uret r vill l peni upon ho much if any renal infection i r nt a re ult f the ope ation The me e po bility of h l g r h e cr l not ju tify ste shi atio J l (i M D)

MISCELLANEOUS

Whit l ouse B Some Problems of tle Men tru l F nct n th Ob er ations on the Rel ti n of the Gra fian Foll cle nd Co pus Luteum to Pat l of gal Uter n Hæm r hæg Et b gl W J) Ld b h Ob t s 39

The author h t l e the alser n n mammal a l d lve le the ast u cycle into four parts foll

1 n strum or p iol of r t
2 l o a t m per l f ndomet al g th n l f nct o l a t i v
3 l e t u m p e l of d e r e he fertil t i o n is effe t e l

4 l reg anc y r pseudopregna cy
In man a d m k y there no an stum an l the c cle are c tructi e and cont u s Fe tile o ulati n mu t be considered as being a ph n m n n apa t f r m pro æstrum

I the hum female ulati n occur betw en tle th tee th an l seventeenth day f the men tru l cycle The p æ t u m nd æ trum o erlap as do o ulati n pseudopregnacy Fr m the lat of vulati n tate of pseud pr gn nev ex i s until ab ut the t enty eighth day of the per l he nec o of the m tru l decidua take place a l e t r n l hum r h g begi s

W th completio of the p dopregnacy a tate of pro t m de el p hich al eacle t cme ab ut tle t v ntv ighth d v of the cycl but per i ts during the ab tio of the p eulo pr gna cy Th i f llo ed t the conclusi n th me strual hem r h g b y a h r t ast al per d o p e d of le e to pon te f til zat n of th ovum ab ut t e liberat l from one of th matur g follicle

The funct f the co pus luteum i to m nta the nut it of the uteru and prepare the en lo metr um fo the embeddi g of the o um

Whitehou e p ated Halb n exp riments of remo ing corp a lut a at pe i d vary g f om the

seventeenth to t enty fifth days In every instance uterine hæmorrhage resulted i thn from thirty six to forty eght hours He conclude that the true menstrual hæmorrhage is a result of degeneration and fatty necrosis of the corpus luteum the cause of hich is closely related to the death of the un fertlized ovum

In expe iment on graafian foll cle Whitehouse needed some of the foll cle and e cise l othe s Hæmorrhage esulted i all but one pat e t

He concludes that both the graafian follicle and the corpus luteum contain an acti e principle hich i es ential for the proper le elopme t and function of th endometrium If th pr ciple is ithd a n f m the c rculati n necro s f the superficial layer of the e d metr um en ue On the other h nd its c n tan stimulu promotes developme t of the en l metrium until the mrtu e decil a is formed Many i stances f uter ne hæmorrhage in associati n with fibrocystic ova e p olp ed ova e a d ch onic inflammato v di case of the uterine adnexa h thinks e due to the death of maturin graafian follicle and patholog cal corpora lutea

I l I l A NOT M D

Parol G Tl Top graph y and Cl lcal A pects of Tum rs of tle Femal Genital (T p gr f l degl t m d g t l f m m i l) R l l d g 97 37

Parol e p r t th graph a d c e reports his meth t f r etgenography of the ureters in the f nial a l r t i l p l nest b r ng ut both normal n l p thologi al a ymmetrie curvatu e par t cularly in the pelv e port n th se most fre quently affect d b y ute ine and ova nia tumor

Its ob e vat on dicat that uteral di pl ce ment may be a d rect cause of diso de s n both the upp r and the lo er u ina tract and that myomata n l nb omata of the ute us and broad l ament pl y an mport nt ole n patholog cal de ut ions of the u eters e d bladd r

A cervical fibroma e u s rete t i o n of ur ne les through mechanical pressu e n the eck of the bladder than b y pushing the t igone and urethr upw rd and fo ward thereby c u ing a reflex sp st contracture of the sphincter lnc t i e e e ult fr m a mular refl mechan m pr d i c n paralys of th ph nct

Re l e ion e comit t th g nital tumors (i ben oot ascr babl t a c l t l f f tors preg nancy m lig ant legeneration t l f f sm ntercur rent d ea et) m v b e c n l e r e d n the l g e major tv f ca es as lu t p m ary r i r sta e used hy ste o i f the eter tr m the m chan cal action of the tum f l e pvelo phr t f p gna cy may be s m l rlv ex pl ed nce i plac me t of th bl dle to a d the l f t f exampl the nsequet tretchi g l e mpr io f tber ght u terwo ld f f rd b t clet th u nar l o g n tber ghts de The auth r e p r t e e n hich e e ephrit and pvelo ephriti re cu ed by the oper ti e r m l of ge nital tum

With regard to the operative removal of genital tumors Iaroh advocates isolation of the ureter as a routine precautionary measure in all cases in which there is the slightest ground for suspecting its involvement in the field of operation. The operative ureterography diminishes the risk by demonstrating the relation of the ureter to the rest of the field.

Of special importance is a knowledge of the greater lateral and forward deviation of the normal left ureter in its pelvic segment as compared with the normal right ureter. In pathological conditions this deviation is often exaggerated. As operations for uterine fibromata and tumors of the adnexa require exposure of the left ureter four times as often as exposure of the right ureter the advantages of an accurate knowledge of ureteral topography in gynecological surgery can scarcely be overestimated.

MINA A. CHURCHILL

Hammant A. and Cornil L. The Lymphatic Origin of Certain Cystic Formations in the Pelvis Following Total Castration of the Female (Sur l'origine lymphatique de certaines poches kystiques pelviennes consécutives à la castration totale chez la femme.) *Bull Soc Anat* 1907 82: 488

Cystic or pseudocystic formations in the pelvis after total castration of the female are apparently not due to any single cause. The authors report a case in which several months after a total hysterectomy for salpingitis the patient returned complaining of severe pain on the right side and examination revealed a cystic mass in the right flank. The mass was removed. Some time later the patient again experienced pain in the pelvis and another fluctuant mass was discovered. Vaginal extirpation was attempted but because of the adherence of the mass and the occurrence of profuse bleeding removal was not feasible. A portion of the presenting wall was resected and the edges of the defect were

sutured accurately to the vaginal wall. Recovery was uneventful.

Histological examination of the specimen revealed immediately beneath the vaginal epithelium a layer of fibrous tissue with a rich network of blood and lymph vessels. The endothelial lining of the sac was continuous with that of dilated lymphatic vessels. The cyst was therefore a cystic lymphangioma. Whether it was a true lymphangioma or a simple hyperplasia resulting from an inflammatory process could not be stated with certainty but the authors believe it was the latter.

LEO M. ZIMMERMAN, M.D.

Guillemin A. Serous Accumulations in the Pelvis Following Operation (Collection serueuse pelvienne opératoire.) *Bull Soc Anat* 1907 82: 487

The author reports a case in which the patient returned to him one month after an uneventful hysterectomy complaining of severe pain in the abdomen sides and back. In the right side of the pelvis a fixed tender fluctuant mass the size of an orange was discovered. On re-examination from week to week the mass was found to be slowly growing smaller. After the complete absorption of the mass the pain ceased entirely.

In the case of another patient pain developed in the back and pelvis following a somewhat stormy convalescence from hysterectomy for pyosalpinx and a similar fluctuant mass was found in the left cul-de-sac. The symptoms persisted without abatement for several months. Ultimately a colpotomy was done. About half a glassful of clear yellowish slightly stringy fluid was evacuated and the cavity drained. The symptoms then gradually ceased.

The origin of the serous accumulations is unknown but serous peritonitis lymph accumulations and late hematoma formation have been suggested as possibilities.

LEO M. ZIMMERMAN, M.D.

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Item n C R peat d Pre n n y Aft Am n
o r i e Indu ed by Ro ngen f r d at on of
U O es (W J) h S) b h H)
Am h l l t h b h l n d O
) / t H f (k l g

The case reported was that of a woman thirty-two years old with a right contracted pelvis. In 1921 because of severe menorrhagia and recurrent pulmonary tuberculosis she was given a full castration dose of the oestrogen rays on the right side and as this failed to produce the desired result she received half of the full dose on the left side four weeks later. The second irradiation was followed immediately by amenorrhoea.

Three years later without a return of menstruation the patient was delivered by forceps of a still-born but full-term and normally formed child and scarcely eleven months after this delivery she gave birth to a healthy girl weighing 2,970 gm. In the second pregnancy premature labour was done. In the third year during which he was under observation the normally developed child showed no evidence of roentgen injury. The menarche after amenorrhoea still persists. HEYB (G)

Tau g F J Tle Amn of e Flu d r d Its Qu n
t r t l V a l b l t y i J O l t G i)

Recent studies especially by chemical analyses of membrane and amniotic fluid pointed to a remarkable function of the amnion. While the source of the amniotic fluid believed with reasonable certainty to be the amnion epithelium the cause of the quantitative variations in hydramnion and oligohydramnion are still unknown.

Certain types of deformity of the fetus are associated with hydramnion and other types with absence of the fluid. In both conditions malformations are especially common.

In oligohydramnion near the end of the amnion rather constant may be an etiological factor.

In hydramnion histological changes in the amnion or chemical changes in the amniotic fluid have been found to explain the occurrence of the condition but the placenta usually large and the increased surface secretion may explain the increase in the quantity of the fluid. There is definite evidence of the physiological swallowing of amniotic fluid by the fetus and when the absorption of amniotic fluid is blocked by a hind neck deglutition or a stricture in the upper part of the digestive tube hydramnion results with striking frequency. Especially in the acute forms of hydramnion at a pregnancy (usually uniovulation) is often found

The prognosis for the child is poor in both groups of cases. For the mother the conditions under discussion usually mean a complicated but ordinarily not a dangerous labor. There is some tendency to variable recurrence.

The fact that oligohydramnion occurs most frequently in primiparae and polyhydramnion occurs most frequently in multiparae indicates that the physical resistance to expansion of the uterus by the abdominal muscles is an important factor governing fluid accumulation. E L COVEL MD

Item n A Extr Ute line P egnancy Rupt ed
by Suc cess F s u e s w t h Correspo d g
Haematocele (G s e e t a t n m p e p r
t a t s e h m t c e l o e p o
d t) B H S d b i t d g t e d P 927
x 486

The case reported was that of a para 1 forty-two years of age who had two attacks of abdominal pain. The nausea and a tendency toward syncope. On examination a tender mass in the region of the right iliac fossa and softening of the cervix were made out. Following the patient admission to the hospital a third abdominal crisis occurred with a lemon-sable increase in the size of the pelvic mass. Laparotomy revealed a haematocele occupying the right side of the pelvis and part of the right iliac fossa; a second and encysted haematocele capsulating the corpus of the uterus and extending behind it and a third and smaller haematocele also encysted lying in front and to the left of the uterus. The third haematocele found proved to be the oldest and the first of the most recent of the three accumulations. The right tube which contained a fetus of about three months was removed.

The case clearly demonstrated the production of three distinct haematoceles following three partial ruptures of an extrauterine pregnancy. It is unique in that the three accumulations were separate and distinct instead of being fused as is usually the case. To explain the different position of the haematoceles the author assumes that the tube lay in front of the uterus originally and was gradually drawn backward by the increase in its weight from the successive haemorrhage. I DO M Z MIERMAN MD

LABOR AND ITS COMPLICATIONS

D L J B T Ne Id s on t l e Mechan sm of
l e c a l L c r a t i n Du g l e b o A Pr
l m n a r y Repo t l J O b t & G 927
499

When the fetal head distended the cervix the latter may be stretched so much that it gives way at the sides that in its congenitally weaker posterior

tions This form of laceration is the easiest to recognize the easiest to sew up and the one generally mentioned in the textbooks

In another form of laceration the mechanism of the tear is almost the same but while the musculature and fibrous tissues give way at the sides of the cervix which are the congenitally weakest spots the external and internal mucosa of the cervix does not give way and there is a submucosal parting of the tissues Inspection of such a cervix will show thick anterior and posterior lips with a very greatly stretched and excessively thin bridge of tissue on each side By grasping the internal and external cervical mucosa with two tissue forceps it is usually possible to separate these two layers from 1 to 1½ in without any difficulty and to discover in doing so that the very edges apparently intact have been disunited Occasionally however the edges are not torn at all that is the laceration is perfectly submucous The repair of such an injury is best made by splitting the mucosa and then digging out the deeper muscle and fibrous tissue and lifting it up so as to pass the needle beneath it

A third form of laceration of the cervix is much more complicated and not so easy to repair The cervix is dilated radially to the utmost and the damage to the tissues is general that is all the fibers are stretched beyond their limit of endurance The internal mucosa of the cervix becomes edematous and is ripped from its base prolapsing through the external os The cervix after delivery looks like the everted anus of the horse

The repair of a cervix so lacerated is not easy The edge of the cervix is pulled down with ring forceps while the mucosa is pushed up into the uterus with the four fingers of the left hand the thumb making counterpressure on the exterior The vagina and bladder are held up by means of a suitable retractor and are not endangered While the cervix is thus restored to its normal condition at the stage of full dilatation three sutures are placed at about the juncture of the vagina with the cervix being introduced from the vaginal side These sutures go down into but not through the internal mucosa and hold the prolapsed layer in place until healing is well under way The procedure is seldom necessary on the posterior lip E. L. CORNELL M.D.

Hendry J Spontaneous Rupture of the Uterus Before or During Labor *Edinburgh M J* 19 7
xxiv Edinburgh Obst Soc 163

Spontaneous rupture of the uterus may occur unexpectedly and without warning in the course of

pregnancy unexpectedly and without warning in the early stages of labor or at the end of a prolonged obstructed labor following a definite train of warning symptoms the recognition of which might have prevented it

The author reports four of his own cases in detail and reviews fifty four others reported in the literature In the author's four cases rupture occurred (1) in a para ii with a bicornate uterus whose first delivery was accomplished by version (2) in a para ii whose first delivery was accomplished by cesarean section (3) in a para vi after a comparatively short labor with brow presenting and (4) in a para vi after a long tedious labor with occiput posterior position

In twenty one of forty cases studied cesarean section was found to be the cause of the rupture In sixteen of these twenty one cases the rupture occurred during pregnancy and in seven it occurred during labor

In 25 per cent of the cases studied the cause was damage to the uterine wall in previous intra uterine manipulations such as version manual removal of the placenta difficult forceps delivery or curettage or of disease of the uterine wall following septic abortion a septic puerperium or other inflammatory condition One rupture occurred at the site of an old perforation caused by a curette

Pituitary extract was regarded as the causal factor in 10 per cent while malposition and disparity between the size of the presenting part and the pelvis was responsible in 12½ per cent The author calls attention to the fact that in all of the cases studied not a single rupture occurred following myomectomy

The principal signs and symptoms were shock pain hemorrhage cessation of the fetal heart tones and distinctness of the fetal parts to palpation

The author treated all of his own cases by supra vaginal hysterectomy In one case extraction of the fetus through the vagina was done before the operation
GILLIARD E MILLER M.D.

Jellett H The Abuse of Cesarean Section *Brit M J* 1927 ii 451

Jellett states that cesarean section is seldom necessary and should be avoided whenever possible on account of its immediate risk and its possibly crippling effect upon the patient

He cites various statistical reports on the employment of the operation in contraction of mild degree eclampsia and placenta prævia

WALTER E LEVY M.D.

GENITO-URINARY SURGERY

ADRENAL KIDNEY AND URETER

Begg R C Incontinence of Urine of Renal Origin
B t M J 9 927 9

Begg reports a case of urinary incontinence due to irregular development of the renal bud derived from the lower part of the wolffian duct

Incontinence due to an aberrant ureter occurs exclusively in females Corresponding anomalies occurring in males—in which the ureter opens into the prostatic urethra the vas deferens or the seminal vesicle—are not accompanied by incontinence as the latter is prevented by the powerful external sphincter The irritation may cause pollakiuria but never incontinence

While the anomaly is developmental its sequelae are not observed from birth in all cases When the ureter opens close to the internal sphincter the toxicity of the latter sometimes serves to retain the urine—at the expense of renal dilatation—until the muscle is relaxed in normal micturition

In the diagnosis the surgeon must determine whether the aberrant ureter is on the right or left side whether it is supernumerary or single and whether it is infected or dilated The functional value of the renal element involved must also be estimated

If there is a history of incontinence with normal micturition and urine is seen to drip away from the vestibule or urethra after the bladder has been emptied with a catheter the diagnosis of aberrant ureter is almost certain The rhythm of the drip is similar to that from a ureter draining through a urethral catheter When the bladder is filled with a colored solution—irrigocarmine or methylene blue—the urine dripping away remains clear In some cases repeated examinations may be necessary before the leak is discovered

An abdominal incision is difficult to find even when it is known to be present When it is in the vestibule a careful examination with the help of a magnifying lens may be necessary If it is in the urethra a water dilating urethroscope may disclose it if the patient is an adult In young children its discovery by the latter method will usually be impossible on account of the smallness of the urethra and the difficulty in getting sufficient dilatation

There should be no difficulty in differentiating the ordinary type of enuresis in which there is copious bed wetting which empties the bladder In cases of aberrant ureter the function of micturition is normal though there may be frequency from concurrent infection A group of cases more difficult to differentiate are those of diurnal incontinence in children in which as the result of weakness of the bladder musculature due to infection or other cause a small

quantity of urine escapes on exertion As a rule this does not begin until after the age of 6 years The patient should be closely observed preferably in a hospital Methylene blue should be given by mouth to keep the urine colored and filter paper covered with a gauze swab placed on the vulva so that the smallest leakage may be observed If after a week of observation with the patient in the recumbent position there is no staining aberrant ureter can probably be excluded

In the cases of adults where incontinence occurs only on coughing or exertion the diagnosis may be very difficult as the same symptoms are frequently associated with weakening of the vesical sphincter In these cases and those of vesicovaginal fistula the history should lead to a thorough urological examination Even in the youngest child the vagina can be satisfactorily examined with the urethroscope The cystic ureter may be palpated through the anterior wall of the vagina and urine expressed from it

The main points brought out in the article may be summarized as follows

1 There is a rare type of urinary incontinence caused by an aberrant ureter opening into the urethra or the vestibule of the vagina

2 The cardinal sign is incontinence in association with normal urinary function

3 The abnormality can be explained only by the assumption that the wolffian ducts enter into the formation of the female urethra and vestibule

4 Usually the abnormal ureter is one component of a double ureter so that cystoscopy shows two normal ureters in the bladder

5 The ureter is generally dilated and infected and belongs to a kidney which is diseased and has little function

6 The usual treatment should be nephrectomy or partial nephrectomy but in clean cases ligation of the ureter may suffice If the kidney is performing a large share of the renal function the aberrant ureter should be implanted into the bladder by a high operation

CLARENCE P O'CONNOR M.D.

Thomson Walker Sir J Tuberculosis of the Kidney *B t M J 9 7 65*
 Fullerton A Statistics of Postoperative Survival in Renal Tuberculosis *B t M J 1927 ii 63*

THOMSON WALKER states that as the result of improvement in urological technique and an increase in our knowledge of urological pathology the operative mortality in tuberculous of the kidney has been reduced from 25.4 to 2 or 3 per cent in the last twenty-five years

Renal tuberculosis occurs most frequently between the ages of twenty and forty years In chil-

dren it is rare and in the early stages is more frequently bilateral. The ratio of males to females affected is about 1. In adults chronic renal tuberculosis is unilateral in from 80 to 90 per cent of cases in the early stage.

Strictly speaking primary tuberculosis of the kidney does not occur. A primary focus is always present elsewhere in the body although it may not be demonstrable clinically. A history of pleurisy and clinical evidence of obsolete pulmonary tuberculosis are common while tuberculous glands of the mediastinum are found at autopsy in a large proportion of the case. Active pulmonary tuberculosis is associated with renal tuberculosis in 53 per cent of cases.

The exact relationship of tuberculous lesions in other parts of the body (also secondary) to the renal lesion is not always clear but some of these other lesions may be the immediate source of the tubercle bacilli infecting the kidney. Those most common are genital tuberculosis in the male and tuberculosis of the bones and joints. In the cases operated upon by the author tuberculous epididymitis was found in 33 per cent tuberculous prostatitis in 15.3 per cent and tuberculous vesiculitis in 7.3 per cent.

Experimental investigations have revealed evidence of infection ascending through the lumen of the ureter and histological examinations have shown evidence of lymphatic spread of infection along the ureter. Pathologically there is evidence of lymphatic infection from the thorax. However the weight of evidence at the present time indicates that the infection in renal tuberculosis is blood borne.

There are three varieties of renal tuberculosis: (1) miliary tuberculosis, (2) chronic renal tuberculosis and (3) tuberculous nephritis.

Miliary tuberculosis is an acute bilateral condition of no surgical interest.

Chronic renal tuberculosis includes apical tuberculosis, ulceraverticulous tuberculosis, tuberculous hydronephrosis, caseous tuberculosis, nodular tuberculosis and tuberculous abscess. In the great majority of cases the first change is a small loss of substance at the apex of a pyramid surrounded by a zone of inflammation. The ulceration subsequently spreads toward the base of the pyramid and a cavity communicating with the calyx is formed. Beyond this is a zone of inflammation which may show gray tubercles. There may be also a complete zone of gray gelatinous tubercles. Outward from the zone of inflammation isolated tubercles are dotted in normal renal tissue or arranged in streaks radiating to the surface of the kidney. The surface of the kidney shows groups of tubercles over the subjacent tuberculous pyramids. In the wall at the neck of the calyx or the division of the pelvis at its outlet or in the pelvic wall fibrous thickening may develop and cause occlusion of the passage. Persistence of urinary secretion in such an area produces a localized cyst or hydronephrosis but if urinary secretion is stopped caseous masses are formed. In many cases the ureter is greatly thick-

ened and rigid and shows ulceration, necrosis and caseation of the mucosa. Tuberculous infiltration, stricture and dilatation of the ureter may result.

In pulmonary tuberculosis the urine may contain albumin and casts. In chronic renal tuberculosis these may be present also in the urine of the other kidney. In the latter condition the symptoms usually clear up after removal of the tuberculous kidney. In some instances these findings have been attributed to toxic nephritis and autopsy has revealed either an interstitial or parenchymatous nephritis but no tuberculous changes. Tubercle bacilli have been found also in kidneys without any specific tuberculous changes.

The symptoms of renal tuberculosis do not at first and may never directly refer to the kidney. They may include: (1) bladder symptoms such as irritability with increased frequency, (2) urinary changes such as polyuria, albuminuria and pyuria, the urine being faintly acid or neutral, (3) the presence of tubercle bacilli in the urine, (4) slight or occasional hematuria, (5) a continuous slight loss of weight, (6) renal pain or colic, (7) slight fever and (8) a palpable swelling of the kidney and thickening of the ureter. In uncomplicated cases tubercle bacilli but no other bacteria are found in the urine. Renal pain may be slight or absent. Colic may occur when there is severe hemorrhage. Fever is rare but occasionally the temperature rises to 99 or 100 degrees F. A high temperature is indicative of a mixed infection or general tuberculosis.

A tuberculous lesion of the kidney may be arrested as the result of: (1) disappearance of the tubercle bacillus and replacement of the ulcer by scar tissue (rare) or (2) exclusion of the tuberculous focus by a ring of fibrous tissue (closed renal tuberculosis). In the latter case there may be bladder irritability for a time but as this subsides and no other symptoms develop the lesion may not be discovered until after death. The condition is usually discovered during routine examinations by roentgenography and cystoscopy. In the presence of the symptoms mentioned, cystoscopy and chromocystoscopy may show a closed and dragged out ureter. Both open and closed tuberculosis may be present in the same kidney. This explains a temporary cessation of symptoms. Urinary tract infection may occur from a tuberculous focus which has been closed.

The diagnosis of renal tuberculosis is based upon: 1. The spontaneous development of cystitis with an insidious onset in a young adult in association with discomfort, pain, enlargement and tenderness of the kidney.

2. Aseptic pyuria and albuminuria (constant signs).

3. The presence of tubercle bacilli in the urine. This is final proof of urinary tuberculosis but in some cases the bacillus is not demonstrable when the symptoms point to tuberculosis and in others it is demonstrable when other proofs of tuberculosis are wanting. When the bacillus is not demonstrable

in the urine the diagnosis may be made on the basis of the symptoms the presence of tuberculous lesions elsewhere in the body especially in the male genital system thickening of the ureter X-ray shadows of caseous masses in the kidney A positive cystoscopic finding Tuberculo bacilluria may occur in the absence of other signs but in itself cannot be regarded as proof of tuberculous disease of the kidney In some instances it may be associated with a non-pyelic nephritis When pyuria is absent a closed renal tuberculous cyst can be excluded the disease is no surgical tuberculo of the kidney

4 The complement fixation reaction In most cases accurate histologic method render the superior fluid but some cases it is of value

5 Iodine cystoscopic finding These alone may warrant the diagnosis of renal tuberculo but the ureteral orifice may be normal when the kidney is infected or may be in a lesion an area of tuberculous cystitis when the kidney is free from disease Chromocystoscopy is of little diagnostic value

6 The finding of catheterization of both ureters and examination of the urine with regard to tubercle bacilli other bacteria and the functional power of the kidneys In cases of advanced tuberculous cystitis in which the ureteral orifice were inflamed and ulcerated in the passage of a catheter impossible the author prefers to do a laparotomy and incise the ureter in the lower iliac region for the passage of the catheter but if the ureters found diseased it is not opened

7 The demonstration by X-ray examination of calcareous areas in the tuberculous kidney and thickening of the ureter and the demonstration by pyelography of changes in the renal pelvis and calyces

The modern treatment of renal tuberculous is nephrectomy when the other kidney is healthy and there are no definite contraindications Partial nephrectomy has been abandoned because of the difficulty of determining the extent of the renal disease Nephrotomy is done only when nephrectomy is impossible Obsolete tubercles elsewhere in the body do not contraindicate nephrectomy When active tuberculo of bones or joints is present operation on the kidney should be postponed until the extrarenal tuberculous has been successfully treated Active pulmonary tuberculous a contraindication to operation on the kidneys Tuberculo is of the male genital organs does not prevent nephrectomy In bilateral renal tuberculous some surgeons remove the kidney showing the more advanced disease but this is justified only when one kidney proved to cause profound toxemia and the other is in the earliest stage of tuberculous infection

In Thomson Walker's technique for nephrectomy the ureter removed through the lumbar wound as far as the pelvic brim eared with the cautery or pure phenol ligated and dropped into the retroperitoneal space If after six months the disease

still active in the ureter and is infecting the bladder extraperitoneal ureterectomy is done through a median suprapubic incision Ureterectomy is advisable when there is stricture at the lower end of the ureter with dilatation of the duct (8 per cent of cases) In most cases the wound is closed without drainage but in some instances drainage may be necessary on account of oozing or infection of the perinephritic tissues by tubercle bacilli or other bacteria Sinuses that appear a few weeks after primary healing of the wound are due to tuberculous infections and are treated by curettage the application of iodine and the administration of tuberculin

Tuberculous cystitis and ulceration usually subsides after nephrectomy but in chronic cases the full capacity of the bladder is lost and frequency develops The cystitis and ulceration may persist for years The treatment of the bladder consists in the administration of sandalwood oil and tuberculin High frequency cauterization has been recommended for superficial and limited ulceration

In the author's cases no results have been obtained from tuberculin alone but in all cases of renal tuberculo is Thomson Walker gives tuberculin (TR) for two years after nephrectomy This has a beneficial effect on the bladder and tuberculous lesions elsewhere in the body

FULLERTON reviews a series of 141 cases of renal tuberculous in 73 of which nephrectomy was done Five (6.8 per cent) of the patients died as the result of the operation All of the deaths occurred in the first 35 cases Of the 68 survivors 55 were traced Fifteen have died since 4 after long period of complete relief Eleven died probably from a continuation of the tuberculous infection Thirty one of the survivors have been well for period varying from twenty years to six months since the operation Including 4 patients who died from other causes eight years or more after the operation a total of 35 out of the 55 (more than 63 per cent) were apparently cured of their urinary symptoms The sequelae in the 9 survivors who were not cured include frequency pulmonary involvement epididymal in ol ement spinal caries and prostatic involvement All of these survivors however report more or less general well being

Of sixty-eight patients treated medically especially with tuberculin forty one were traced In these cases the condition was of the usual type and except in five or six operation was not contraindicated when the patient was first seen Twenty-six (63 per cent) of the patients are dead The survivors lived in more or less comfort for period ranging from one year to eighteen years after the onset of symptoms but only two were really well In three cases there were deposits in the prostate vesicles or epididym and a bacilluria was present when the patient was first seen One patient who had bilateral involvement in the early stages is well seven and a half years after the onset of symptoms but has an occasional attack of frequency The

other survivors showed symptoms up to five years from the onset of the illness.

These findings indicate that operation is the best treatment of renal tuberculosis. If operation is performed early before deep ulceration appears in the bladder relief is almost immediate. Even in late cases a cure may be obtained if the other kidney is sound. Deep ulceration and the presence of tubercle in the bladder render the prognosis less favorable especially as regards the relief of frequency of micturition. Frequency ensues even when healing occurs because the scarred and contracted bladder cannot expand.

LOUIS NEUWELT M D

Thompson T Carbuncle of the Kidney *Lancet*
1927 CCIII 693

Carbuncle of the kidney is defined as a hematogenous infection of the interstitial tissue of the kidney producing a localized and circumscribed zone of multiple suppurating foci the remaining renal substance being unaffected. There is always a primary focus as a rule a furuncle of the skin.

The author reports the case of a woman fifty-two years of age who developed a carbuncle of the neck during January 1926. Incision was done for evacuation of the pus. While convalescing the patient took a sea voyage. During this trip at the end of the first week in February 1926 she knocked her left loin rather severely against a bunk. Ten days later she was taken ill with severe pain in the left side a high temperature and general malaise. There were no urinary symptoms. A diagnosis of influenza and pleurisy was made and the patient brought back to England. After her arrival she continued to run an irregular temperature and complain of intense pain in the left side of the abdomen and loin her general condition became worse there were occasional rigors and the swelling rapidly increased in size.

On March 8 1926 the left kidney was explored by Kidd. This operation revealed a perinephric abscess and bulging of the lower pole of the kidney by an ill defined indurated swelling. The abscess was opened and drained the kidney removed and the wound drained. The pus from the abscess was found to contain staphylococcus aureus in pure culture. The patient made a slow but uneventful recovery.

The certain diagnosis of renal carbuncle can be made only at operation but the occurrence of a pyrexial illness accompanied by chills pain and swelling in the loins within a few weeks after a primary staphylococcal infection of the skin particularly when there is a history of a blow to the kidney region during the intervening time should always suggest this condition.

In the first few days of the illness the unexplained pyrexia may suggest an influenzal attack. When pain is an early feature a cough develops and the movement over one pulmonary base is diminished it may suggest pleurisy or pneumonia but a careful

examination of the lungs will fail to reveal any other abnormal signs. It may simulate also a bacillus coli pyelitis but frequency of micturition and dysuria are not common the urine is nearly always sterile and free from pus and the usual alleviation of symptoms does not follow the administration of alkalis.

Within a few days of the onset a deep swelling appears which is generally recognized as a perinephric abscess. Psoas abscess and on the right side appendiceal abscess and acute cholecystitis must be excluded by careful consideration of the history and the findings of physical examination.

The presence of a primary suppurative lesion suggests the possibility of secondary metastatic abscesses in the kidney. In cases of secondary renal abscesses the urine always contains a considerable amount of albumin pus and organisms. In renal carbuncle the function of the kidney as estimated by the rate of excretion of dyes is not impaired whereas in cases of secondary metastatic abscesses of the kidneys it shows gross impairment.

When the perinephric abscess is drained at operation inspection of the kidney will generally reveal a swelling at one pole with the point at which it has ruptured visible on the surface. If following the drainage of what is believed to be a simple perinephric abscess the wound continues to discharge after the elapse of a reasonable period of time the possibility that a carbuncle in the kidney has been overlooked should be considered. In such cases an exploration will be necessary. Considerable help may be obtained by injecting the sinus with bismuth paste or lipiodol when the presence of an irregular cavity within the kidney substance may be demonstrated.

If a case is seen early medical treatment may be tried with colloidal manganese staphylococcal vaccines or sodium nucleinate. When a perinephric abscess is diagnosed surgical interference is always indicated. Drainage is never sufficient in most cases nephrectomy will be necessary. When the carbuncle is found to be single small and at one pole the ideal treatment consists in excising it. The rest of the kidney which is unaffected should be left since as Kretschmer has shown a second carbuncle may occur in the opposite kidney.

CLARENCE R O CROWLEY M D

Danhie P Massive Infarcts of the Kidneys (Les grands infarctus rénaux) *J de med et chir*
1927 CI 481

Although only about forty cases of massive renal infarction have been reported in the literature the condition is not very rare. Experimental work with regard to the effect on the kidney of ligation of the renal vein or renal artery has yielded somewhat contradictory results but it appears that ligation of the vein leads to necrosis of the kidney and death in only about 60 per cent of the experimental animals whereas arterial ligation is always followed by necrosis of the organ.

In man the most frequent causes of renal infarcts are embolism and thrombosis of endocardial or aortic origin. Less common causes are childbirth and abortion. Unusual causes are neoplasms, local injuries, the vessels compression, torsion or kinking of the pedicle, diphtheria, scarlet fever, grape and retrograde thrombosis. Virchow reported the occurrence in children of diarrhoeal disturbances leading to dehydration or pressure on the renal vein by the inferior vena cava.

The pathological changes are those of infarction elsewhere. Here and there islets of viable tissue are found. In some instances several infarcts are present. The other kidney may undergo septic changes, often shows small infarcts and areas of necrosis, and is liable to irreparable damage if the affected organ is not removed.

The clinical picture is characterized by pain, oliguria, albuminuria and hæmaturia. The pain occurs at the onset of the attack. It is general at first but quickly becomes localized in the lumbar region. It is of a severe stabbing character and resists morphine often persisting for several days. It rarely radiates to the thigh or pudendal region.

The albuminuria is constant and massive. If albumin is present in the urine before the attack, it is increased after the attack. It is due to vascular congestion and the elimination of necrotic products.

Oliguria is present in practically all cases. There is usually a diminution to from 500 to 800 c.c.m. Sometimes only 100 to 200 c.c.m. of urine is passed in twenty-four hours. Anuria may occur especially if both kidneys are affected.

Hæmaturia occurs in from 30 to 40 per cent of the cases. It is rarely of a gross nature and at times can be detected only with the microscope. It lasts for two or three days. Occasionally there is cylindruria (hyaline) hæmoglobinuria, or pyuria. Ureteral catheterization in the affected side reveals a few drops of bloody fluid containing albumin and casts. A renal tumor very tender to the touch is felt in the flank.

The general symptoms are not characteristic but as a rule the condition causes vomiting, collapse and a rise in the temperature to from 100° to 103° degrees F.

When operation is not performed the attacks recur at intervals of a few days or weeks until death results from uræmia or peritonitis.

The treatment indicated is nephrectomy to save the other kidney. Even when the septic form is early in fact one may already have occurred in the other side or may occur thereafter.

M. BAELI, M.D.

Bibliography: The Diagnosis and Treatment of Malignant Tumors of the Kidney (Nelson's Medical Dictionary, 1911, p. 434).

In cases in which the presence of a tumor of the kidney is suggested by hæmaturia, pain and swelling, catheter at once of the ureter, roentgenography

and pyelography should be done at once. The first will show the origin of the hæmorrhage and indicate which is the diseased kidney and the second will show the deformity of the kidney and pelvis which is characteristic of renal tumor at a time when clinical examination is still negative.

Pyelography is of very great value. In doubtful cases it should be repeated in series at intervals of a few weeks or months and a comparative study should be made of the pyelograms obtained in this way to determine whether the deformity is progressive. Progressive deformity is a certain sign of tumor.

The only possible treatment of tumor of the kidney is nephrectomy. As a rule this should be done by the paraperitoneal route with free exposure of the hilus and observation of the general rules governing the removal of malignant tumors.

AUDREY G. MORGAN, M.D.

Motz, G. Pyelography and Pyeloscopy in the Diagnosis of Tumor of the Kidney and Renal Pelvis (L. pyelographie et la pyeloscopie). d. gu. t. d. t. me. d. d. et d. bas. t. 4. 1. 1. d. la. 1. d. Necker 97. 1.

The author reviews twenty-five cases of renal tumor in which a pyelographic examination was made and supplements his article with pyelograms.

Pyelography may show changes in the outline of the calyces and renal pelvis due to protuberances or depressions, total or partial disappearance of the outline of the pelvis, total or partial disappearance of one or more calyces, amputation of the calyces, central or marginal gap, a change in the orientation of the calyces and pelvis, deviation of the upper end of the ureter or distention or rigidity of the outline. None of the deformities however pathognomonic of cancer as they may all be caused by clots, calculi and infection. Moreover a cancer may develop for a certain length of time without causing deformity of the pelvis or calyces.

In cases of cancer causing renal tumor and hæmaturia the cancer is sufficiently advanced for clinical diagnosis and pyelography is of only secondary importance. When there is only a tumor, pyelography or better pyeloscopy will show that the tumor is a benign neoplasm and include other forms of enlarged kidney such as polycystic kidney.

Hæmaturia alone is the most frequent sign. Pyelography will always be of no use when only hæmaturia is present as it may make an early diagnosis possible. No exploratory operation should be performed without preliminary pyelography. If the pyelogram shows the slightest deformity of the calyces or renal pelvis in such cases operation should be considered.

Of fifteen cases of renal cancer observed at the Necker Clinic, sixteen showed deformity of the calyx and renal pelvis, pyelographic examination of the cases in which hæmaturia was the only sign and the diagnosis was doubtful, left many of the pelvis confirming the clinical suspicion of cancer was found in every case.

If pyelography is performed systematically in all cases of hematuria suggestive of cancer it will sometimes give a sufficiently early diagnosis of renal cancer to permit successful operation.

AUDREY G. MORGAN, M.D.

Mackenzie D. W. and Waugh T. R. Cystadenoma Pseudopapilliferum Malignum of the Kidney with Metastases in the Tongue *J Urol* 19 331

The authors report a case of cystadenoma pseudopapilliferum malignum of the kidney with metastases in the tongue. It presented not only unique features but characteristics of importance with regard to the histogenesis and pathogenesis of the tumor. The patient was a man sixty five years of age. In the right side of the tongue in immediate proximity to a dirty ragged tooth stump there was a hard indurated lump covered by a slightly ulcerated mucosa. On the same side there were several enlarged submaxillary glands. The abdomen was distended by a mass which filled the entire right side and extended slightly across the midline. Roentgenograms of the long bones and the chest showed no evidence of metastases. A cystoscopic examination was essentially negative except that roentgenograms of the ureteral catheters in place showed the right catheter pushed over to the left beyond the midline and the pyelogram of the right pelvis showed no shadow.

Operation was performed first on the tongue and submaxillary glands because they presented a clinical picture of primary carcinoma. After the urological examination the right kidney and the mass were exposed extraperitoneally through a curved loin incision which extended anteriorly almost to the median line.

The gross specimen of the tumor mass consisted of a rather small kidney, the lower pole having been replaced by a thick walled ellipsoidal cyst the size of a pumpkin which was distinctly separated from the rest of the kidney by its thick capsule. The cyst contained 2750 ccm of turbid chocolate colored fluid. The outer surface of the cyst wall was smooth. The inner surface was covered by a soft spongy yellowish friable tissue.

Microscopic sections of the kidney at a distance from the cyst showed relatively well preserved parenchyma with an increase in the irregular hyaline fibrous connective tissue between the tubules in the medulla. A few tubules were obliterated in parts of the hyaline tissue calcareous degeneration had occurred.

Sections taken from the various areas of the tumor tissue presented the metamorphosis of the neoplastic growth. Near the cyst wall at the pole of the kidney the section showed mature regular closely packed tubular acini which resembled the tubules of the medulla of the kidney. The cells rested on a rather rudimentary basement membrane. The growth here would be called adenoma.

Sections nearer the cyst began to show a less orderly arrangement. The tubules became larger irregular and cystic with invagination of the walls the picture of cystadenoma being produced.

Farther away from the kidney under the cyst wall the cells took on a less mature appearance but a basement membrane was preserved. Pseudopapilliferous projections occurred into the lumen of the dilated acini which were found to be portions of aborted and incomplete tubular walls the inner portion of which had undergone atrophy and necrosis. The cells became more immature. Such a structure would be termed cystadenoma pseudopapilliferum.

Finally there occurred areas of atypical arrangement of embryonal cells breaking through the basement membrane. This structure represented the complete metamorphosis and was called cystadenoma pseudopapilliferum malignum.

Microscopic sections of the tongue and glandular structure showed a metastatic growth simulating in every respect the malignant portion of the kidney tumor.

In the authors opinion the various steps showing the metamorphosis of this neoplasm support the theory that malignant growths of the kidney may arise from benign adenomata. Attention is drawn to the gross similarity of this neoplasm to the hypernephroma. The difference between true and pseudopapilliferous projections into the lumina of cystic growths was carefully worked out. The authors agree with Borst that the majority of papilliferous cystadenomata of the kidney are of the false type.

The literature shows considerable confusion in regard to nomenclature classification and derivation of these malignant atypical epithelial tumors of the kidney. The authors report their case not only because of its unique clinical and pathological features but also because they desire to simplify the classification of such neoplasms by emphasizing their possible modifications and transitions in growth.

The article is supplemented by a comprehensive bibliography and photomicrographs showing the transitional phases of the neoplasm.

J. EDWIN KIRKPATRICK, M.D.

Murogan P. Duodenal Fistula Following Nephrectomy (Sulle fistole duodenali consecutive a nefrectomia) *t. ital. di chir.* 19 7 657

The patient whose case is reported was a man forty five years of age who had suffered for years from renal colic. When the author first saw him he had an enormous pyonephrosis and a temperature of from 40 to 41 degrees C. A roentgenogram showed calculi.

When the sac was incised a lumbar fistula secreting purulent urine remained. Three months later the kidney was removed. The operation was difficult because of adhesions. On the fourth day after the operation a perforation in the duodenum through

which bile was being discharged was found. The author concluded that the duodenum was injured in the difficult task of removing the kidney. The perforation was successfully closed by direct extra-peritoneal suture.

In cases with this complication the soft parts should be protected with fat to prevent their digestion. Fecher introduces into the fistula a tampon of cotton impregnated with olive oil. As the oil does not mix with the intestinal fluid the tampon prevents the discharge of intestinal contents and permits cicatrization of the lesion caused by the discharge. Fecher reported the cure of thirteen fistulae in this way in from twelve to fifty days. In two cases the fistula was in the duodenum in five cases in the other part of the small intestine in five cases in the caecum and in one case in the colon.

In the author's case liquid and food by mouth are withheld in order to decrease the duodenal excretion of bile and pancreatic juice into the duodenum and the patient is fed by a tube with alkaline or neutral foods through a jejunum tube to get him in condition for operation. Direct extra-peritoneal suture is then performed the duodenum being mobilized as much as possible. After the operation the patient is fed by nutritive enemata and glucose hypodermoclysis.

A DREY G M G N M D

Gaudian V. Surgical Treatment of the Ureter with an Extraperitoneal Opening (Holt, 1911).
 1. 1911. 2. 1911. 3. 1911. 4. 1911. 5. 1911. 6. 1911. 7. 1911. 8. 1911. 9. 1911. 10. 1911.

In a girl six years of age who was examined for enuresis existed since birth a suprapubic urinary ureter was found. This originated in an accessory pelvis of the left kidney and its termination was in a small para-urethral caruncle. Before the mode of operation was decided upon tests were made to determine the renal function on both sides. The presence of two normal ureters on either side in the bladder was established by cystoscopy. In ligocamiae and phenolphthalein tests indicated no malfunctional activity of the right kidney and marked impairment of function of the left kidney (in one of a very low specific gravity and no elimination of the dye from either the normal or the supernumerary ureter).

Because of these findings the author resected the upper portion of the left kidney including the accessory pelvis together with the enormously dilated proximal segment of its ureter. The distal segment he left in situ.

Microscopic examination of the excised renal tissue showed atrophy of the glomeruli and a tendency to proliferation of the interstitial connective tissue.

Of the various plastic methods that have been tried transplantation of the ureter into the wall of the bladder seems to be the only promising one and this is useless except in cases in which the ureter drains a healthy kidney in all others (decidedly the

majority) total or partial resection of the kidney is the method of choice. MERRILL A. GILDE SLEEVE.

Schreiber M. Ureteral Stricture Its Anatomical and Pathological Background. Based upon the Findings in 100 Consecutive Autopsies. J. Gynec. & Obst. 9:7, 1914, 43.

By a study of autopsy material histological preparations, clinical record and autopsy records the author attempted to answer the following questions: 1. Is there such a pathological lesion as that described by Hunner and his followers?

If so, is its incidence as great as the reports indicate?

3. Does focal infection play a part in its etiology? 4. If not focal infection, what is the true pathogenesis?

5. What are the finer and yet gross physiological anatomical structural forms that may give to pyelographic and x-ray bulb methods those clinical signs that are interpreted as ureteral stricture?

The autopsy material consisted of 100 consecutive unselected autopsies, 79 performed on adults and 21 performed on children. After careful examination of the organs in situ the entire pelvic contents with the ureters attached were dissected free en masse. Particular attention was paid to (1) the course of the ureter (2) the ligamentum latum with the crossing of the uterine artery over the ureter (3) the presence or absence of uterine prolapse or cystocele (4) the course and ureteral relations of the vas deferens (5) the seminal vesicles and prostate (6) the iliac and hypogastric vessels and gland (7) the bladder both its internal and external surface.

The ureters were then examined for both physiological and pathological zone of narrowing and widening and changes of density in their wall. In nearly every instance histological sections of the ureters were made.

Clinical records were examined for a history of urinary disturbance, focal infection or ureteral stricture and physical findings relative to the urinary tract and physical findings relative to focal infection.

Autopsy protocols were investigated as to the chief anatomical diagnosis, the special anatomical diagnosis relative to ureteral stricture and special anatomical findings of focal infection.

In 6 of the 100 cases some form of ureteral disease was found. Twenty-five of the subjects with ureteral disease were adult. In 5 of the 26 cases the condition was primary in the ureter. In 2 of the 5, examination revealed stenosis at the pyelo-ureteral junction. In 1, stenosis at the juxta-cesical region and in 2, congenital blind ureters with hydro-uretero-nephroses.

In 21 cases the pathological condition of the ureter was secondary to an adjoining pathological process. Of the 9 female inflammations of the ovaries and uterine tubes and 5 chronic cystitis, 2 and pro-lapse of the uterus. Of the 10 males prostatic obstruction was found in 5, cystitis in 5, neoplastic

origin in 1 cystitis in 1 tuberculous peritonitis in 1 and foci of lymphatic leukæmia in 2. Of the children a subureteral fibrosis at the site of the crossing over of the lateral umbilical ligament and obliteration of the hypogastric artery were found in one and microscopic deposits of lymphatic leukæmia in the other.

The autopsy findings in each case are described in detail. The following conclusions are drawn:

1 Stricture of the ureter is a definite pathological entity.

2 The discovery of ureteral stricture or stenosis in 1 per cent of the autopsies corroborates the great number of ureteral strictures or stenoses reported clinically.

3 Latent symptomless hydro ureteronephrosis due to ureteral stricture or stenosis is of relatively frequent occurrence as was evident from the fact that it was found in 10 per cent of the autopsies.

4 Ureteral stricture as a localized intrinsic inflammatory process in the ureteral wall metastatic in character and due to focal infection apparently does not occur or is extremely rare as compared with ureteral strictures or stenoses of other origin.

5 Ureteral stricture or stenosis is found most frequently in the pelvic ureter in a zone from 2 to 6 cm. up from the ureteral orifice.

6 As prime etiological factors in the pathogenesis of ureteral obstruction due to stricture and stenosis we would emphasize in the order named: (a) congenitally accentuated narrowing of a physiologically narrow site; (b) extension of inflammatory processes into the ureteral wall from adnexal disease with or without thrombophlebitis and advanced chronic cystitis; (c) the occluding kinking power of crossing anatomical structures such as the vas deferens in the male and the uterine artery in the female.

7 Caution is necessary in the interpretation of the physical signs obtained by the wax bulb hang method of Hünner especially in the very important region from 2 to 6 cm. up from the ureteral orifice since in this region are found numerous physiological sites of narrowing and increased density of the ureteral wall namely: (a) the juxtavesical zone; (b) the iliac zone; (c) the ligamentum latum region; the site of crossing of the uterine artery; (d) the vas deferens region; the site of the crossing of the vas deferens; (e) the site of the obliterated hypogastric artery; and (f) the so-called valve formation in the juxtavesical region.

CLAUDE D. PICKRELL, M.D.

Carson W. J. Metastatic Carcinoma in the Ureter. *J. Surg.* 1917 15: 549.

Carson reports the gross and microscopic findings made at autopsy in cases of primary carcinoma of the prostate extending to the ureters by way of the lymphatics. In Case 2 there were metastases also in the renal pelvis.

In the literature only a few cases of metastatic carcinoma of the ureter and kidney are to be found. In 1925 the author first demonstrated and reported

cancer cells in the perivascular lymphatics of the ureter secondary to primary carcinoma of the prostate bladder and cervix uteri. The rarity of metastases to the ureters from the prostate and other pelvic viscera is due in all probability to the drainage of the lymph downward in the lower portion of the ureter.

Carson's article contains photomicrographs of tumor cells in the perivascular lymphatics of the ureter and kidney pelvis.

J. EDWIN KIRKPATRICK, M.D.

BLADDER URETHRA AND PENIS

Graves R. C. Studies on the Ureter and Bladder with Especial Reference to Regurgitation of the Vesical Contents. The Bladder Pressure Curve in the Human. *J. Urol.* 1927 21: 321.

The one fundamental requisite for regurgitation of the contents of the bladder is a sustained tonic contraction of the vesical musculature as it actively resists distention. Atonic bladders never regurgitate; therefore postmortem experiments are futile. With regard to experiments on animals, Graves states that there are no intrinsic anatomical differences such as have been claimed between the ureterovesical relationship of the laboratory animal and that of man.

Bladder regurgitation is of clinical interest because of its very obvious relation to ascending kidney infections.

Graves believes that in man regurgitation occurs in the presence of obstruction at the bladder outlet. In his study of the phenomenon he has employed a new instrument with which it is possible to record accurately the development of intravesical pressure during bladder filling. This apparatus was devised by Rose of St. Louis who has recently published a report of his studies on the pressure in various types of human bladders with particular reference to the diagnosis of disturbances of innervation.

Graves describes the active animal bladder from which regurgitation readily takes place; the passive animal bladder from which regurgitation is not to be expected; and the characteristic human pressure curves which place the human bladder in the active group.

LOUIS GROSS, M.D.

Joselson J. J. and Lower W. E. Inflammatory Lesions of the Bladder Simulating Neoplasm. A Report of Three Cases. *S. & Gynec. & Obst.* 1917 26: 477.

Inflammatory lesions of the bladder simulating neoplasm are not common.

In the first of the authors' three cases cystoscopic examination revealed a sessile reddish tumor about 1.5 cm. in diameter which was raised about 1 cm. above the mucosa and overlaid and concealed the orifice of the left ureter. On its surface there were numerous rounded villi. The rest of the bladder was practically normal.

A diagnosis of carcinoma was made and the tumor with its surrounding mucosa was removed. The pathologist reported many typical tubercles with giant cell formation.

Subsequent cystoscopic examination showed the right kidney to be normal and to have good function. The left kidney was a source of infection and its function was greatly reduced. Prior to the operation the bladder urine was negative but following the operation it contained pus and tubercle bacilli. Nephrectomy was refused.

In the authors' second case the patient was referred for urological examination eleven months after a bilateral salpingo-oophorectomy. The pathologist had made a diagnosis of tuberculous salpingitis, oophoritis, and endometritis. The diagnosis of endometritis was made from tissue obtained by curettage. The uterus was reduced to a small piece of the mass which could not be removed.

Cystoscopy revealed on the right posterior wall of the bladder a circumcribed rose-colored tumor about 2 mm in diameter and 1 cm in height. The neoplasm was sessile and had club-shaped villi some of which seemed to be cystic. The ureteral urine was normal but cultures of both the kidney and bladder specimens showed bacilli coli.

Vaginal examination revealed a pelvic mass directly posterior to the bladder lesion and a diagnosis of inflammatory action of the bladder wall was made. Removal of the pelvic mass was refused.

The authors' third patient as first seen two weeks after the onset of bladder symptoms. Vaginal examination revealed a large tender pelvic mass extending more to the left than to the right of the midline. This could be palpated in the lower abdomen.

Cystoscopic examination at 11 months later showed a extensive tumor involving the posterior half of the bladder wall of the bladder. The tumor was a reddish gray and correlated with a nodule in the bladder wall.

The neoplasm was believed to be an inoperable carcinoma which had penetrated through the bladder wall and involved the ureteral orifice. Because of the very histologic report transplantation of the ureter was advised.

Operation consisted of a large firm inflammation of the bladder to the bladder segment and small intestine. In the center of the left iliac fossa a small amount of pus was found. A salpingo-oophorectomy was performed. The left half of the bladder was in situ. The firm inflammation was opened and the bladder inflammation was found. The pathologist found the inflammation in the bladder. When the patient returned to the hospital the bladder was normal.

The patient died of uremia. The cause of the uremia was the inflammation of the bladder.

Inflammation of the bladder wall of the bladder was usually a rose-colored. The cause of the tumor was the inflammation of the bladder.

inflammation the possibility of an inflammatory tumor should be considered especially in the cases of women. In doubtful cases a biopsy may help in the diagnosis.

CLAUDE D. P. CKRELL, MD

Heimann F. The Changes in the Bladder in Cases of Cancer of the Uterus Treated by Irradiation. (D. Bladder and endometrium) (3) bullous edema and (4) perforation of the carcinoma.

The cystoscopic findings in cases of carcinoma of the cervix of the uterus are a decisive factor in the treatment of the latter condition. If the bladder is involved by the carcinoma the case is unsuitable for operation and should be treated by radiation.

The bladder changes may be divided into four groups: (1) prominence of the trigone; (2) edema of the bladder wall (transverse fold); (3) bullous edema; and (4) perforation of the carcinoma.

Heimann studied the various bladder changes during irradiation in a large number of cases. He came to the conclusion that the changes in the lesion may be determined to a certain extent from the cystoscopic findings. Improvements and aggravations in the carcinomatous condition during treatment are also always associated with improvement or aggravation of the bladder picture. The more frequent use of cystoscopy as a control in the irradiation treatment of uterine carcinoma is recommended.

D. N. A. L. J. Ureter of the Bladder as a Latent Effect of Radium Application to the Uterus. J. M. I. 1921.

The author reports three cases in which from four to ten to twelve months after radium treatment of carcinoma of the uterus a pyelonephritis developed and cystoscopic examination showed an ulcerated area in the bladder surface. In all three cases of edema. Biopsy specimens were negative for malignancy.

A. Hulcher argues that the result of a central necrosis due to ulceration of the blood supply the author believes the treatment by the resection of the ulcerated area in the bladder is the most successful treatment of the disease. The author also states that the treatment of the disease is the most successful treatment of the disease.

I. Love R. A. Ne. Method of Treating Hypertension. J. M. I. 1921.

In the present paper the author describes a method of treating hypertension by the use of a special diet. The author states that the diet is the most successful treatment of the disease.

then allowed to cicatrize for four or five weeks until circulation is established in the tube.

At the end of that time the tube is cut free at its lower end slit longitudinally turned inside out and sutured to form a tube lined inside with skin and with the bleeding surface outward. Two incisions are then made in the skin of the penis one at the hypospadias opening and the other at the sulcus of the glans and free dissection is done so as to leave a tunnel along the penis. The tube is caught and pulled through this tunnel and through another made in the glans and brought out at the meatus where its edges are sutured. The posterior opening is then closed.

This method can be used in all cases except those in which the hypospadias opening is very far forward.

AUDREY G. MORGAN, M.D.

GENITAL ORGANS

Lower W. E. Complete Closure of the Bladder Following Prostatectomy. *J. Urol.* 1927 lxxvii 749

The author describes a method of suturing the bed of the prostate securely with complete closure of the bladder following prostatectomy. He has used this procedure in fifty cases. He believes it is contra indicated in the presence of severe cystitis.

In the closure of the prostatic bed, no packing of any kind is used. An in lying catheter with two openings is placed in the urethra. With a dot and

dash type of switch a suture of No. 0 or No. 1 catgut is passed below the catheter from the bottom of the prostatic bed along its wall up through and to include a small margin of the bladder mucosa. The needle is then removed and threaded on the other end of the suture and the same procedure carried out on the opposite side. As many such sutures are placed above the catheter as may be necessary to close the cavity. One fine suture is used to anchor the catheter in position. A soft rubber cigarette drain is placed in the space of Retzius for a few days.

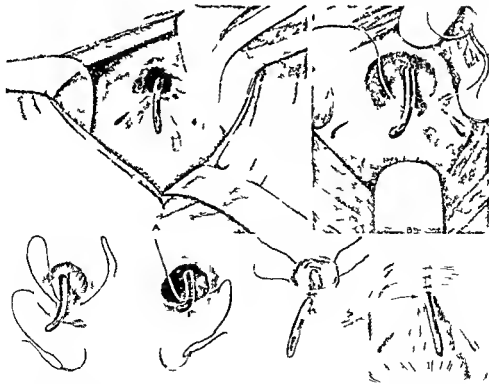
With the aid of this technique Lower has found that the period of convalescence has been shortened, postoperative care has been lessened, and the danger of suprapubic fistula has been reduced. He emphasizes the necessity for avoiding stricture formation at the vesical neck in suturing the prostatic bed about the catheter and avoiding the use of heavy catgut which may act as a residual foreign body.

In the discussion of this paper CHUTE, LEWIS and RANDALL emphasized the importance of adequate postoperative drainage.

CLAUDE D. HOLMES, M.D.

Campbell M. F. Gonococcus Epididymitis. *Ann. Surg.* 1927 lxxvii 577

This article is based on a study of 3,000 cases of gonococcal epididymitis treated at Bellevue Hospital, New York during the last eight years. The important conditions from which this disease must be differentiated are genital tuberculosis, non-spe-



Technique for closure of capsule after prostatectomy (Lower W. E.—Complete Closure of the Bladder Following Prostatectomy)

cific epididymitis (bacillus coli and staphylococci) lues and torsion of the spermatic cord

In the cases reviewed the morbidity was high but there were no deaths. Benzla found sterility in 10.5 per cent of patients who had gonorrhoea with out epididymitis in 3.4 per cent of those with unilateral epididymitis and in 41.7 per cent of those with bilateral epididymitis.

Various palliative measures are discussed. Diathermy relieves the pain but does not shorten the course of the disease. Vaccine sera intravenous medication for eign protein injection and various local medicaments are of little value. The best palliative treatment rests in the use of a special zinc oxide suspension and the application of ice to the affected organ. If the severe pain persists more than for twenty-eight hours surgery at the time it should be given. Sterility is no contraindication after operation than without operation. Early operation may decrease the secondary complications such as suppuration and subsequent abscess or hemorrhage. Open pyelotomy may be by the method of Hagné. The procedure of choice. In Bell's report this operation is followed by the application of a special scrotal haemostatic compression bandage. Most of the patients are discharged on the third day.

M. R. MELZ M.D.

Morris J. H. Malignant Tumors of the Testicle
A Special Reference to Classification
J. S. 9 53

Morris says that malignant tumors of the testicle constitute less than 3 per cent of all malignant tumors but that the unique features have of use upon them are a free fertility and study which in taking disport to their incidence.

In a case which he reports in detail the entolermal derivation predominated in the primary tumor in the form of embryonal adenocarcinoma but the potentialities of the other oppressed layers are evidenced by a variety of secondary metastases in which all the germ layers were represented. One of the metastatic points disclosed a structure which has been identified by isocates of the testis theodysclerotic character of the seminomatous tumor. The latter because of its embryological and its supposed homologous nature is said to be derived from the adult cell of the seminiferous tubules thus precluding any teratogenic relationship.

The testis with its seminomatous structure appeared as a deposit associated with a goipitridermal vascular metastasis the origin of which was unquestioned. Therefore if it is stated by Schultz and Inderhath that all of the metastases of any given tumor will be defined by the particular tissue composition of the primary tumor which has taken on malignancy prior to its isolation is logically that at least in this instance the seminomatous tissue as a constituent of mixed heterologous tumor of undoubted embryonal type.

If the foregoing premises correct the conclusion is warranted that the latter is an isolated case.

nomatous tissue has been demonstrated as an element of a heterologous embryonal structure of teratomatous nature.

It seems justifiable to conclude also that the large celled tumor of the testicle is of embryonal type that the theory of its invariable unicellular or homologous nature has been disproved and that the evidence adduced from the case reported substantiates Ewing's theory of the teratomatous origin of the tumor.
Lotis Gross M.D.

MISCELLANEOUS

Cutler J. H. Obstruction of the Urinary Tract
J. U. Med. & S. 97 138

Cutler discusses various urological instruments and procedures and states that an accurate diagnosis can be made in about 9 per cent of urological cases by the intelligent use of the urological armamentarium. He reports 11 cases in detail to illustrate the different types of urinary obstruction, the method of procedure in each type and the results obtainable.

Obstruction of the urinary tract appears to be a common factor in renal diseases. The injury it causes is directly proportional to its degree and its distance from the renal cortex. As cases of different etiology present similar symptoms a careful urological study is essential. The most valuable aid in the diagnosis of obstruction of the upper urinary tract are the ant bulb ureteral catheter and the pyelo ureterogram.

Most obstructions of the upper urinary tract with the exception of those due to neoplasms may be cured or relieved by so called closed operative procedures through the cystoscope. In hypertrophy of the prostate the establishment of drainage before enucleation is essential. In obstructions at the neck of the bladder the most thorough drainage is obtained by suprapubic cystostomy.

Thom S. F. Foxe M.D.

Kreutzmann H. A. R. Polymyolitis Involving the Urinary Tract
C. West Med. 97 53

Kreutzmann has had under his care a case of polymyolitis which presented findings similar to those of spinal cord bladder but in which none of the spinal cord conditions usually associated with spinal cord bladder was discovered.

In the literature the bladder involvement of polymyolitis is described as occurring in the acute stage. Only one case is reported in which the urinary tract was involved in the later stages of the disease.

Kreutzmann draws the following conclusions:
1. In the early stage of polymyolitis acute retention is sometimes a complicating factor.

2. In chronic polymyolitis there may be growths in the urinary tract which will give rise to the typical findings characteristic of spinal cord bladder.
L. T. Gross M.D.

Eberbach C W and Arn R D Hexylresorcinol
in Urinary Tract Infections Therapeutic
Effect *J Am M Ass* 1927 **LXXIX** 512

During a period of two years the authors used hexylresorcinol in the treatment of about 200 cases of urinary tract infection. Eighty two cases were controlled with sufficient accuracy to present evidence for or against the value of the drug. The following conclusions are drawn:

1 Hexylresorcinol alone will cure about one third of patients with infections of the upper urinary tract in which foci of infection and urinary tract obstruction have been removed. In an additional 20 per cent it will give a symptomatic cure. In about 43 per cent it will improve the condition and in about 25 per cent it will have no effect.

2 In all but about one fourth of the cases of infection of the upper urinary tract an important and

valuable effect of the drug is its rapid and continued relief of symptoms.

3 The earlier in the course of the disease that treatment is begun the greater the chance for cure. In cured cases the average duration of symptoms is nine and one half months and in cases benefited twenty three months.

4 In mixed infections under treatment cocci often disappear from the urine while colon bacilli persist.

5 Coccus infections respond to treatment with hexylresorcinol far more certainly than bacillary or mixed infections.

6 If the use of hexylresorcinol is combined with other effective methods of treating infection of the upper urinary tract it is probable that the percentage of cures will be considerably increased.

THOMAS F. LEECH, M.D.

SURGERY OF THE BONES JOINTS, MUSCLES, TENDONS

CONDITIONS OF THE BONES JOINTS MUSCLES TENDONS ETC

Sci ruffler R McE Recu ent Mult ple Osteo
myel t s Due to Staphylococcus Aureus J
b + J I S g 97 74

Schaffler reviews a group of cases of recurrent multiple osteomyelitis due to staphylococcus aureus in which there is an acute onset in childhood followed by numerous remissions and exacerbations.

There is usually involvement of one or both femora including the hip joint or two or more foci in the humeri or tibiae. Several severe lesions appear in rapid succession and others occur within one or two years. The lesions of the periosteum or deep fascia painful swelling may evolve or suppurate. The abscesses heal promptly after surgical or spontaneous drainage. Lesions of the humerus central and lower tibia and ulna and radius recover by spontaneous or surgical excision whereas many lesions of the shaft of the femur form extensive sequestra which require operation.

In the less severe types of cases there are one or more major bone lesions and a long series of periosteal or deep fascia lesions.

Of eighty five cases of osteomyelitis studied six typical single lesions followed by multiple lesions in involvement and twenty had multiple lesions seen being of the severe and the ten of the less severe type.

Schaffler emphasizes the necessity of searching for and eradicating the quiet foci in the cancellous bone. These are found most often in the upper tibia and next most often in the femur. Their presence may be determined by careful X-ray examination of a focus in which the sinus opens or near which small new abscesses form.

The article includes a number of case reports

ALPH S KETCH MD

Dega W and Zeyland J The pathogenesis of
Osteitis Fibrosa (Cystic) of the hand
p 145 d 1 16 t fib) L 1 r 97
v 37

The case reported seems to add weight to the theory of the non specific origin of Recklinghausen's disease. Following a bilateral Schede-Ludloff operation for hallux valgus on a foundry worker thirty three years of age an examination of the excised portion of the right metatarsal head showed the following changes at their height in two well defined foci communicating with the periosteum fibrous degeneration of the bone marrow lacunar resorption by osteoclasts hemorrhagic foci and an intense vascular sclerosis. Vascular lesions on the left metatarsal of a similar nature but less marked

indicated an initial stage of which the more definitely circumscribed lesions on the right side were a later development. The cause appeared to be purely local but the case is of interest in view of certain known instances of generalized arteriosclerosis accompanied by osteitis fibrosa (Stenholm).

MINA A GILDERSLIEVE

Berard and Tavernier The Treatment of Osteosarcoma by Physical Agents (X-ray, radium, etc.)
L 1 97 v 45

Comments on Tavernier's methods of diagnosis and treating spindle cell sarcoma. BERARD cites the results obtained with roentgen and radium therapy by Regaud and others. Except in the case of a patient with spindle cell sarcoma of the orbit who has remained free from recurrence for two years following roentgen irradiation, Berard has not yet obtained a final cure with radiotherapy.

Of Regaud's eight cases with involvement of the orbit upper and lower jaws ulna and humerus seven have remained cured since 1919. Prolonged roentgen treatments with moderate dosage are given except for the smaller tumors of the upper jaw. The latter are treated preferably by evacuation followed by radium therapy.

Berard agrees with Regaud as to the importance of biopsy. In cases of extensive malignancy biopsy should be preceded by roentgen irradiation. It determines the diagnosis prognosis and method of treatment.

TAVERNIER attributes Regaud's advocacy of biopsy to inadequate knowledge of the possibilities of diagnosis by roentgenography. By means of the roentgenogram it is possible to distinguish benign tumors from sarcomata and osteitis and spindle cell sarcomata from osteitis. Because biopsy is frequently uncertain and always dangerous. Moreover in cases in which a preliminary irradiation is given the biopsy must be done before the tissues undergo any visible change and this is impossible if the sections are distributed over a period of ten days or so as is desirable.
M A GILDERSLIEVE

Gue A A Case of Congenital Ulno Palmar Club Hand with Subluxation of the Finger
(Ulno-ulnar bone united to the phalanx of the fifth finger)
R 1 d 17 p
977 v 47

The sixteen year old child whose case is reported presented congenital malformation of the left foot and both hands but was otherwise normal. The hands were held in exaggerated palmar flexion strongly adducted to the ulna side with the fingers hyperextended at the metacarpophalangeal

joints and flexed at the interphalangeal joints. The radial styloid was quite prominent the proximal phalanx appeared somewhat shortened and the thumb was adducted and seemed smaller than normal. Except for some questionable atrophy the arm and forearm were normal. Flexion at the wrist to a right angle and extension to the horizontal were possible. Pronation was somewhat exaggerated but supination was almost absent. Active flexion of the fingers was impossible. Passive extension was possible to 90 degrees. Flexion was opposed by the dorsal ligaments and tendons. Movements of the thumb were about normal. The left foot presented an equinovarus deformity. There were no pathological neurological findings.

Manual reduction and massage were instituted and the hands put in celluloid splints at night. After a year the hands appeared almost normal showing only a slight tendency toward the former vicious deviation. Active movements however were not much improved.

Cases of this deformity not associated with osseous dystrophy are rare. As far as the author is aware the subluxation at the metacarpophalangeal joints has not been described previously.

The pathogenesis of the condition is not explained. Amniotic pressure (Dareste) amniotic bands (Karmison) and osseous and muscular dystrophy have been suggested as causes. In the case reported dystrophy or aplasia of the lumbricals and interossei with contraction of the flexor carpi ulnaris and weakness of the finger flexors would explain the deformity. The etiology is important from the standpoint of treatment. If no serious muscular disturbance is present treatment similar to that for club foot should be adequate but if the muscles are atrophied or dystrophic tenoplasty of various sorts are indicated.

MICHAEL L. MASON, M.D.

Donati M. Lower Dorsal Kyphosis in Adolescents (Su la cifosi dorsale inferiore degli adolescenti) *Arch. ital. di chir.* 1927 xviii 560

The author reports a number of cases of low dorsal kyphosis and supplements his report with roentgenograms and photographs. The condition may be due to different causes but occurs during the years of growth. There is an indisputable connection between growth and the kyphosis. Cases in which the condition occurred in infants have been reported but in the author's opinion these were probably cases of Pott's disease.

The localization of the disease in the lower dorsal column is due to a special predisposition of the bodies of the lower dorsal vertebrae which are the last to complete their normal development and in which there frequently persists a transverse median area less rich in bone lamellae than the other vertebrae and having a larger marrow space. This area is constant in infants and disappears gradually with the development of ossification. In addition to these changes in the central part of the body there are others of varying intensity in the epiphysis.

When these are particularly marked even if there is no spontaneous pain or pain on pressure which is not frequent the hypothesis of an epiphysitis or an osteochondritis deformans may be justified. In some cases trauma or acute infection may impress special anatomical characteristics on the kyphosis.

If an early diagnosis is made and proper treatment is applied the disease may be cured or at least improved and its progress stopped. Further studies are necessary to determine its etiology and pathogenesis. The theory ascribing the condition to osteochondritis may explain some of the severe cases and the theory ascribing it to epiphysitis may explain some of the milder ones but neither of these theories will explain all. There is no doubt however that there is a relation between growth and the kyphosis and that the localization in the lower dorsal column is due to the special morphological conditions and decreased resistance of the lower dorsal vertebrae. AUDREY G. MORGAN, M.D.

Wallace J. O. and Permar H. H. Internal Derangement of the Knee Joint. *J. bone & Joint Surg.* 1927 xv 677

A dislocated semilunar cartilage in the knee joint acts as a foreign body. If an acute dislocation is reduced and the joint is put at rest complete recovery usually results. Recurrent dislocations cause extensive joint changes such as longitudinal splitting or transverse fracture of the cartilage with displacement of the fragments. These result first in an aseptic inflammation with congestion and a serous and cellular exudate and later in hyperplasia of the synovial membrane or overgrowths of granulation like tissue followed by congestion vascularization and fibrosis of the fat pads. The smooth articular surface is covered with a film of granulation tissue called pannus. The fat pads may be injured coincidently with the cartilage and become swollen and congested the condition suggesting a dislocated semilunar cartilage. If a bit of fringe or villus becomes centrally degenerated it may calcify, become detached and form a foreign body which if covered with cartilage develops into a joint mouse.

Internal derangement of the knee joint may be caused by trauma ranging from a simple sprain of the internal lateral ligament to dislocation and fracture of a semilunar cartilage rupture of the crucial and lateral ligaments and fracture of the spine of the tibia. There is usually a history of sudden severe strain with the knee in a flexed position a slipping sensation within the joint inability to extend the knee completely and severe pain. In chronic cases there is intermittent slipping in the joint without locking, tenderness along the internal lateral ligament and over the anterior margin of the tibia medially and recurrent effusions into the joint with subsequent stretching of the capsule and ligaments and atrophy of the muscles. The scar tissue at the side of the torn cartilage causes a curling of the cartilage. In another group of cases there are the usual points of tenderness and effusion. A char-

arterial sign slight limitation of complete extension due to partial locking of the joint

Roentgenograms may demonstrate a narrowing of the joint space on the distal end of the injured cartilage a thickening of the structures in the anterior pouch and lifting at the margin of the condyle due to a thickened pannus formation The external semilunar cartilage is rarely injured When it must be removed the removal of the internal cartilage is also advised

The treatment consists in the removal of the irritating cause In seventy-one arthrotomies performed in the usual manner with the knee flexed the internal semilunar cartilages were removed in thirty-three the external semilunar cartilages in eight fat pads in three and both cartilages in three In three cases the semilunar cartilage was found to be tuberculous and in one case a tuberculous cyst was found springing from the anterior end of the semilunar cartilage In one case the posterior horn of the internal semilunar cartilage was ruptured and adhered to the fragment above the internal condyle

RUDOLPH S REICH M D

Bissell Ruptures of the Tendon of Achilles (A) p p d upt d tnd d chille B H I e s o i d h 9 7 1 98

Rupture of the tendon of Achilles while not common a case from rare In two cases seen by the author the rupture occurred while the patient was pushing a barrel In one case it occurred at the insertion and in the other in the upper third of the tendon The latter was of special interest because it had remained untreated for three months with the following effect marked inability to flex the foot marked reduction of the flexion and rapid fat gain which prevented the patient from working At operation each fragment of the tendon was found drawn to a point the middle end to enduture difficult

An excellent result was obtained by suturing the tendon and maintaining the foot in extreme flexion for several days

When they are operated upon immediately these ruptures are cured very easily

V R F DE GROOT M D

SURGERY OF THE BONES JOINTS MUSCLES TENDONS ETC

Gantiam S A A Method of Spinal Fixation in Tuberculous Spinal Children J Bo G J I S g 9 48

Grantham describes a simplified method of splinting the spine with autogenous bone grafts for tuberculous spondylitis

A laminectomy is made just beneath the spinous process of the second vertebra below the lesion through the supraspinous ligament to a point just above the level of the lamina A tunnel osteotomy is made in the vertebral body and a handle bent

like a crow is introduced into the incision at a point on the posterior process just above the lamina The first process is then divided The spinous process is then divided to a point to a vertebra beyond the other end of the lesion and with the instrument is inserted an autogenous tibial graft fitting into the groove of the instrument is inserted into the tunnel The osteotome is then withdrawn with the graft in contact with the stump of the spinous processes and with the lamina below The only sutures necessary are those for closing the wound

After the operation the patient is permitted to be up and about as soon as he desires Grantham prefers this method to the Hibbs and Albee procedures because the latter require division of the dorsal fascia which he considers of importance for support Moreover this method gives immediate immobilization takes much less time than the other procedure and is attended with very little shock

The article includes a report of six cases in which favorable results were secured

RUDOLPH S REICH M D

O'Good R B Etiological Factors in Certain Cases of So Called Sciatic Scoliosis J B J I S g 9 7 067

Osgood Goldthwaite and Buchholz believe that in some cases sciatic scoliosis is due to arthritis resulting from the absorption of toxins from the large intestine in intestinal stasis In numerous instances a roentgenological study made following the administration of a barium enema revealed retention of the barium in the caecum or transverse or descending colon after twenty to thirty hours

In O'Good's cases the patient is put upon a non constipating diet and faulty bodily mechanics are corrected by exercises Frequently an abdominal pad or a light brace is applied to maintain the correction of the position when the patient is ambulatory Mineral oil and agar are given and if necessary are supplemented by senna licorice powder or castor oil or colonic irrigations Occasionally enemata are given first every day and later every other day or twice weekly Drown's method of abdominal massage is used

Scars due to intestinal fistulas are reported in all the regimens suggested and in marked improvement

RUDOLPH S REICH M D

Lambert C A New Operation on Drop Foot B J J S g 9 7 x 93

In the operation described by Lambrecht an incision is made above the external malleolus close to the posterior margin of the fibula carried down below the external malleolus and terminated at the center of the middle metatarsal bone The skin and all of the soft parts down to the periotomy are then dissected back so as to expose the foot and back of the ankle care being taken to leave intact the anterior and posterior ligaments of the ankle joint itself The periotomy is extended low down and dissected up The tragaloscaphoid joint

is opened and the knife carried under the head and neck of the astragalus into the front part of the subastragaloid joint. The interosseous ligament is then divided and the knife carried into the posterior compartment of that joint.

The subastragaloid joint is sufficiently freed to allow the foot to be dislocated inward the astragalus being left *in situ*. In order to mobilize the foot a little more the soft parts are dissected away from the upper surface of the os calcis and the lower articular surface of the astragalus and a notch is made horizontally from side to side in the posterior inferior aspect of the scaphoid. The head of the astragalus is then depressed to its utmost limit and the neck is sawed through. The foot is dorsiflexed so that the cut surface of the os calcis and the sharp anterior margin fit into the notch made in the scaphoid.

The obliquity of the saw cut through the neck of the astragalus depends upon the angle at which it is desired to set the foot. If the paralysis is complete the foot should be set at an angle of 95 degrees to the leg. If the paralysis is incomplete the foot should be set in varying degrees of equinus so that whatever power remains may be employed over a more useful range.

The angle produced between the articular surface of the os calcis and the astragalus both denuded of their cartilage is filled up by a graft taken from the excised head and neck of the astragalus. This graft is not intended to act either as an intra-articular or extra-articular block; it is designed merely to increase the anteroposterior thickness of the astragalus when it is placed in the practically vertical position.

This operation has been tried for almost all degrees of foot drop from complete paralysis of the dorsiflexors to partial paralysis associated with valgus and varus deformity. It has been done also on patients between the ages of six and sixteen years. In seven of nine cases it was completely satisfactory. The two failures were due to slipping of the astragalus. The best functional result is obtained in cases of partial paralysis because in these it is possible to place the foot at an angle which enables the patient to make better use of the power he has left. In one case Lambrinudi transplanted the active peronei into the tibialis anterior and posterior and set the foot at an angle of 100 degrees. A very good result was obtained. Whether the paralysis is complete or not it is best not to set the foot at right angles to the leg because this makes the wearing of an ordinary heel uncomfortable and prevents the active gastrocnemius from coming into action during walking. If the foot is set at 95 degrees there is a range of passive dorsiflexion of from 95 to 85 degrees and the gastrocnemius acting through even this small range gives some spring to the gait.

The patient walks with an ordinary boot without a lump and have no pain. In none of the cases has arthritis developed.

The operation permits a certain range of movement at the ankle joint enabling the gastrocnemius to come into action during an important phase of the step forward and at the same time keeps the foot up sufficiently for it to clear the ground. Only the subastragaloid joint is arthrodosed.

S. C. WOLDENBURG, M.D.

FRACTURES AND DISLOCATIONS

Conwell H. E. The Treatment of Acute Comminuted Fractures About the Elbow Joint. A Report of Sixty Cases. *South M. J.* 1927, 31, 579.

Cohn I. Fractures of the Upper Third of the Ulna. *South M. J.* 1927, 31, 585.

Shipley A. M. Open Reduction of Fractures of the Forearm. *South M. J.* 1927, 31, 59.

CONWELL reviews cases of comminuted fractures about the elbow joint with severe trauma of the soft parts. In all the treatment was carried out in a comparatively simple traction device designed by him.

The average time of hospitalization was thirty-two days. The end results were less satisfactory in industrial cases than in civilian cases. The author effects immediate reduction under general anesthesia regardless of the condition of the soft parts. The arm is then put in traction in abduction with the elbow flexed to the maximum and the flexion is increased daily until full flexion is obtained at about the fifth day. On the fifth day extension is begun and reaches the maximum on about the twelfth day. Active motion is begun as soon as possible. Physiotherapy in the form of heat and massage is begun after the fifth day.

In all of the cases reviewed a Wassermann test of the blood was made immediately after the injury. Of the fifteen cases in which a positive reaction was obtained twelve gave negative reaction a few days after the injury.

CONWELL states that traumatic ankylosis of the elbow is not an uncommon sequel of fractures about the elbow. There are certain types of fractures that will regularly result in partial or complete ankylosis unless definite effort is made from the onset to prevent disability. One of these is a fracture of the ulna, particularly of the upper third.

In fractures of the upper third of the ulna reduction of the deformity is essential. When the deformity is reduced no limitation of motion results. If it is not possible to maintain the reduction open operation is advisable.

Fracture of the upper third of the ulna should be treated by hyperflexion of the elbow.

Maintenance of the normal carrying angle is essential for a perfectly functioning elbow. Anything which will permit greater freedom of the ulna in a lateral direction considerably alters the carrying angle.

In fractures of the upper third of the ulna there is a definite pendulum swing of the upper fragments to the radial side. This is due in part to contraction

Direct blows on the great trochanter do not fracture the femur but if the force is great enough cause fractures through the acetabulum

S. C. WOLDENBURG M.D.

Angellelli O Traumatic Luxations of the Knee

(Le lussazioni traumatiche del ginocchio propria mente dette) *Chir. d. organi di movimento* 1917
vi 435

Angellelli reports the case of a man of thirty six years who fell from a height of about 10 meters striking violently on the postero external surface of the left leg and heel with the leg in extension. The roentgenogram showed a forward dislocation of the tibia on the femur. When this was reduced and splinted the patient recovered with the joint in good position in twenty days.

Luxations of the knee joint may occur forward backward laterally inwardly outwardly anterolaterally or as the result of rotation. The author performed experiments on cadavers to determine the mechanism of their production. In complete anterior and posterior luxations produced experimentally by indirect action he found more or less extensive lesions of the capsule at its anterior posterior or lateral insertions depending upon the kind of luxation produced. There were always lesions of both of the crucial ligaments the anterior one being most frequently detached from its tibial insertion and the posterior one detached from its femoral insertion. Partial detachment of the patellar ligament from its tibial insertion was frequent whereas total detach-

ment or detachment from its femoral insertion was rare. The lateral internal ligament was almost always detached from its tibial insertion. The external lateral ligament was usually intact but in a few cases was partially detached from its tibial insertion. Not infrequently the head of the fibula was dislocated. The posterior ligament was the most resistant in only a few cases was the middle part of its tibial insertion detached. The semilunar cartilages were usually detached from their anterior or posterior insertions according to whether the dislocation was anterior or posterior.

Unruh says that complete anterior dislocation of the tibia by indirect action can be produced by flexion combined with movements of rotation and lateral strain and the author found this mechanism effective in his experiments. Malgaigne's mechanism of forced extension was not effective in producing anterior luxation but caused posterior luxation. The author was able to produce anterior dislocation by forced hyperextension combined with movements of rotation and lateral strain. The experiments give a very good idea of the mechanics of the knee joint the resistance and elasticity of the different ligaments and the approximate intensity of the trauma necessary to produce the various dislocations. They show also the importance as in all trauma of the constitution.

The treatment of all forms of dislocation of the knee joint is reduction and immobilization for a few days followed by early mobilization and massage.

AUDREY G. MORGAN M.D.

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

BLOOD VESSELS

Moni E Int acarot d Inject o s and Substances
Op que to the Roentgen Rays Wh ch Are
Sulr ble for Injection (In) cto t car t d
e t b t j t bl paq s a ay ns
N) P f Pa a 7 x 969

The auth r la expe mented ith solutions of
ari u lts paque to the roentgen ays to find a
relati ely no to ic substa ce wh h can be in
j ct d into the carotid a tey fo viulization of
th cereb al cir culation

As the bromide a t in general less tox c than the
olid d ffe t solutions of str tium lithum
s lum l amm n m brom des vere tried first
l he str nt um and lithum salts vere f und to be
the most opaque The to ic ty of these in different
trengths wa t ste l fir t n the dog and then in man
lt a f und that n man the int a venous injection
of fom 5 to 35 cm of a 7 per cent solut on of
strontium bromide u ed only fleeting unple sant
ymptom

When th olele ere te ted rubidium and
s lum to hile ref u l to be f value Sodium
iod de in sp r ce t solutio best and in ca laver
experiment o a que t the o tgen r ys

These ub tanc h e bee nected into the ciro
tial of dog l men In th latter they demonstrated
th e bal v el

The result f th experiments a e to be g ven in a
futu e report Mc AFL L M & M D

Constam G R I m y Invol ement of the
Upp F t em ti n th r mbo Angi r Ob
it y (Bue g rs Die) A J M S
9 i l 5

M eth in So pe cent f a e of th r mbo a gus
obliteran e n at th M vo Clinic h e been pe
v ou ly lagn l e rectl

The h cte s t let an inflammatory
tl ombo n l ng n t ly the large v n and
arter but als th hne t br nche

The cause f th l eac i un k v n In m st
ca e th first mpt m appear n the l e ex
tremite the l l n l arms become affected
l t e f at ll In onl t ent f u f a series of
nincty f u ca bsc ed t the M vo Clinic e e
ther ympt m lu to tle ion of the ppe
extremite In fur the le ion in the ba d a
the out t n l ng clini al ob e tio n l p p re tly
the hands e e v l ed p rma l The e four
ca e a e r p t il e ce u e th r mbo angus obliter
an of the hand l e frequently lagn ed incorrectly

In every ca e f pe ph r l va cula disease a
complete gen l am nat n i e ential The e
group of oby t ve s nptoms must be lo led for

(1) pulseless vessels (2) signs of vascular insuffi
cie cy and (3) vasomotor phenomena Constant
af sence of pulsation in one of the main ves el
without signs of vascular insufficiency or a h tory
of prog essi e involvement is suggestive of a well
compen ated organic les on but alone is not sut
e ent evidence for a dehnite diagnosis A diagnos

f primary functional vascular d sease is justifiable
only when no signs of an organic affection can be
f und

Organic vascular affections often start with a o
motor disturbances and these alone may be present
n the early stages Intermittent pallor and cyanosis
initial symptoms of thrombo angus obliterans
of the hand and are frequently mistaken for symp
t ms of Raynaud's disease In the case of a male
v th a vascular affection thrombo angus obliter
ans should b susp cted even in the presence of pul
s t ng ve sel

In the upper extremities arteial nsufficiency
fom thrombo angus oblite ans is more common
than arterio clerotic endarteritis It rarely leads to
g ngrer e of more than a fe fingers In nearly all
cases the lo er limbs are affected sooner or later
The p oces localized in the lower extremities is
usually much more mutilat ng Therefore in al
ca es of thrombo a gus obliterans of the hand
pr tect e measures to the lower extremities are i
dicated e f clinical evidence of the r nvolve ment
l lack ng Rob RT M GRIZZ M D

McPheete H O The Inject on Tre tme t f
Va cose Vels by the Use of Scler l g Solut
ions S g G & Ob t 9 7 l 54

This eport is ba ed upon tle cl cal re lts ob
tai ed n thirt o cases of varicose veins in wh
approximately 8 njections of a sclero ng solu
tion wer given The auth r d a s the foll w ng
co clusio

1 The results nd ate that the i ject on treat
me t of varicose ith 20 per cent s dium chlor le
solution i uper or to other method ope ative or
no pe ative

The danger of death from embol m thou h
theoreticall e r pre ent is pract cally and cl n
cilly almost nil

3 The t eatment is ambulatory permitting the
patie t to c ntinue hi usual work

4 The p t ent is spa ed expen e as ho p tal bill
are a o d d and he is not compelled to lea e h
wo k for from four to si weeks

5 If a correct technique is used sl igh ng ca
be avo ded

6 The cramp like pains through the leg d tal
to the site of inje tion are no more severe than
many patients e perience daily

7 It is a simple matter to repeat the treatment if the varicosities recur

8 Unless blood can be repeatedly drawn back into the syringe the solution should not be injected

9 The results are so uniformly satisfactory and obtained so easily and with so little risk to life that the injection method bids fair to replace surgical excision

Dumas A and Ravault P. A Physiological and Histological Study of the Circulatory Conditions in the Left Lower Extremity in a Case in Which the Femoral Artery Was Ligated in 1870 (Recherches physiologiques et histologiques sur les conditions circulatoires au niveau du membre inférieur gauche où a été exécutée une ligature de l'artère femorale en 1870) *Lyon chir* 19 7 11 387

When examined in 1925 the patient whose case is reported (a veteran of the War of 1870) was still able to walk though with difficulty. The left leg had atrophied but its temperature was normal and there was no gangrene. The blood pressure in the dorsalis pedis was reduced to less than a third of that on the opposite side.

On the death of the patient from influenza the following year dissection revealed complete obliteration of the left femoral artery at the site of ligation (upper part of the triangle of Scarpa). Immediately above the ligation the vessel was greatly reduced in size and its lumen obliterated. The muscular fibers of the media had also disappeared but the elastic framework of the adventitia was preserved intact. Below the site of ligation the artery progressively increased in size eventually attaining its normal volume and structure and showing in the gradual regeneration of its contractile tissue one of the niceties of functional adaptation.

The approximately normal caliber of the popliteal and tibial arteries on the injured side gave further evidence of the successful establishment of a collateral circulation. Although the increased resistance offered by its multiplicity of smaller vessels was responsible for the decrease in the pressure in the dorsalis pedis and for the moderate degree of muscular atrophy the collateral circulation had been adequate to keep the local temperature normal and to prevent the development of gangrene.

MINA A. GILDERSLEEVE

Leriche R and Fontaine R. The Discordance Between Local Hyperthermia Following Sympathetic Neurotomies and the Findings of a Study of the Arterial Circulation in These Cases (De la discordance existant entre le hyperthermie locales consécutives aux neurotomies sympathiques et les résultats de l'étude de la circulation artérielle dans ces cas) *P. sc. Méd. Par* 1927 11 971

In accordance with the theories of Bernard it has been assumed that the local hyperthermia resulting from sympathectomy is due to the local active vasodilatation of the arteries. The authors believe that this theory is not correct for although the in-

crease in the local temperature and the vasodilatation appear simultaneously after the operation the vasodilatation soon ceases whereas the temperature increase persists for some time. Moreover the circulatory response as measured by the Pachon oscilometer is sometimes just the opposite of what is to be expected from the thermal condition of the part. These facts indicate the necessity for careful physiological study. No explanation is offered for them.

MICHAEL L. MASON, M.D.

BLOOD TRANSFUSION

Dyke S. C. The Determination of Compatibility in Bloods. *Lancet* 192 cxxix 910

In the selection of a donor for transfusion it is essential to test the recipient's serum against the red cell of the proposed donor. This should be carried out carefully and according to a standard technique. In addition grouping tests on both recipient and donor are desirable but little importance can be attached to them until we are more certain as to the constitution of the groups. The mere fact that a person is known to belong to Group 4 can never justify the assumption that his blood will suit any and every recipient. Matching tests are necessary for universal donors as well as for others. However as it is probable that the blood of donors of Group 4 will be compatible with the blood of more recipients than the blood of persons belonging to other groups it is desirable to have persons of Group 4 on the roster of a transfusion service. If transfusion is always preceded by matching donors belonging to other groups may also be included.

SAMUEL KAHN, M.D.

Tzavaras S and Mavrodin D. The Quick Arrest of Genital Hemorrhage in the Female by the Injection of a Concentrated Solution of Sodium Citrate (Arrêt rapide des hémorragies génitales de la femme par les injections de solution concentrée de citrate de soude) *Presse Méd. Par* 19 1 111 986

The authors use sodium citrate solutions for hemostasis in the menorrhagia of virgins and the bleeding associated with uterine carcinoma and other genital conditions in the female. They state that the agents generally employed today for hemostasis—ergot, hydrastis, hamamelis, adrenalin, stypticine, gelatine, calcium chloride and the various era and organic preparations—have not proved to be of constant value and roentgen castration, periarterial sympathectomy and hypogastric ligation are not always possible.

Following a review of the literature on the use of sodium citrate in gynecological hemorrhage and a summary of its indications the authors report six cases exemplifying the diverse conditions in which it is of value.

In Case 1 there was an abundant menorrhagia of one week's duration the uterus was enlarged and the adnexa were swollen on one side and cystic on the other. One intravenous injection of 15 c. cm. of

7. 30 per cent solution of sodium citrate stopped the bleeding in 10 hours.

Case 2 was a case of metrorrhagia of three weeks duration associated with a cervical polyp. After the injection of 10 ccm of sodium citrate the bleeding stopped in three quarters of an hour. Operation was not used.

Case 3—as a case of inoperable carcinoma of the cervix. Three injections of 10 c.c.m. of sodium citrate during the first try of treatment led to cessation of the hæmorrhage. The bleeding did not recur in the two months the patient was under observation.

Care was taken to bleed gas at the time of use in the absence of a very demonstrable pathological changes. The bleed gas ceased after the injection of 0.5 cm of sodium nitrate separate from an interval of 14 hours.

Case 5, as that of a man with a strongly positive Wassermann reaction and metrorrhagia. The injections of sodium citrate, the trial of the lysine, were successful. A syphilitic treatment was then begun.

CASE 6 was a case of menorrhagia and metrorrhagia of three months duration associated with a uterine fibroid. The abnormal bleeding was stopped by one injection of 100 mg. of sodium citrate.

The author do not claim that sodium citrate should replace therapeutic measures against the cause of the hemorrhage but maintain that it is an immediate harmless and far superior to any other employed.

The solution is made up of 30 gm. of sodium citrate, 0 gm. of magnesium chloride, 100 ccm. of distilled water. It may be injected intramuscularly or preferably intravenously. The dose is 100 to 500 ccm. of the 30 per cent solution and may be repeated once or twice. The treatment for a man of 60 kgm. seems to be about 15 gm. This amount is not exceeded by the dosage mentioned. Unto a dyspnoea or there may be pain, malaceleration of the pulse, pallor, a tendency to omit headache, lighter in the temperature, metallic taste in the mouth, the sensation of electric shock in the arm and leg and restlessness at night but these do not occur often and are not too serious and can be prevented by injecting the solution slowly.

The mechanism of action of the sodium citrate solution is bound up with the complex problem of blood coagulation. As these can be given with regard to the authors suggest that the citrate may effect hemostasis by (1) decreasing the viscosity of the blood (2) decreasing the coagulation time (3) increasing the fluidity of the blood (4) decreasing the platelet aggregation (5) favoring coagulation at active sites coagulable at the site of the bleeding and (6) neutralizing the product of bacterial action and its toxic action when the condition is inflammatory.

M c L Maso M D

LYMPH VESSELS AND GLANDS

Hanford J M Roentgen Ray Treatment of
Tuberculous Cervical Lymph Glands A Study
of 141 Patients Treated by Smith Doescher
Filtered Roentgen Ray with Follow Up Re-
sults A H S S 1937 377

Since 1917 the author has treated 147 patients with the oestrogen rays. The group were not selected except that persons with active pulmonary tuberculosis were usually ejected. The dose of radiation used was small being about one third an erythema dose of rays filtered through 3 mm of aluminium. The treatments were repeated at intervals of 2 weeks and the usual number of treatments was 10. The lesions were divided into (1) large glands (over 2 cm) small gland (2) cystic swelling (3) collagenous nodules and (4) sinuses. The results are summarized in the table.

Forty per cent of the cystic swelling resolved without incision or spontaneous opening. The collections abscesses all resulted in sinuses.

The author concludes that tuberculosis of the cervical lymph glands is primarily a surgical problem but small doses of roentgen ray treatment as given in the cases reviewed appear to shorten the course of the disease and favor improvement in all stages. A large percentage of cases except those of cold abscesses. No undesirable effects were noted. This treatment compares favorably with a variety of other methods especially follow up results are lacking.

C L E H H C O M D

Cl t l l M T l e S u g l e T eatment of Tube c
lou Gl nd f the N k l y g g l
8

Older age of troublesome neck glands and clinical diagnosis of tuberculosis was made in 130 and the diagnosis was confirmed at operation. In cases the diagnosis was doubtful but in 7 of the 6 tuberculo-

considered. Ninety three of the patients were female, 10 were under 30 years of age and 28 were over 30 years of age. 19 of the 85 patients had their first location of the condition was situated in the lateral. Most of the cases operated upon were advanced in the case were discharged sinus free. The bilateral disease in 18 cases and 14 of these a tonsillectomy and adenoidectomy had been performed. In the latter there was only 1 case of tuberculosis of the tonsil.

Pr a d t de ness occu ed o l 29 ca e
The ch ef compla nt as usualy the un ightl ness of
th con dition

Tuberculo is of the cervical gland must be differentiated from acute non tuberculous adenitis. It is a disease characterized by thyroid enlargement and malignancy.

Acute tuberculous adenitis occurs suddenly following some other infection. It usually comes from the tonsils and is 4 weeks in length. It then subsides or an abscess is formed.

| | N | F
d
t
f
t
M | F
mb
tm
t | F
p
tm
f
t
M | Slight
m t | | M
p
k d m
m t | | App
d tly | | M
fit
k dly b
l tly pp
ed | |
|-------------|----|----------------------------|--------------------|-----------------------------|---------------|----|------------------------|------|--------------|------|---------------------------------------|------|
| | | | | | N | cr | N | cr | N | cr | N | cr |
| T (1) | | | 9 4 | 6 56 | 4 | 9 | 33 | 3 4 | 67 | 47 5 | | 7 9 |
| La g gl d | 68 | 39 | | 8 3 | 9 | 8 | | 35 3 | 5 | 36 7 | 40 | 7 |
| Sm ll gl d | 47 | 4 5 | 8 6 | 6 | | 3 | | 3 | 7 | 57 4 | 37 | 78 7 |
| Cy t well g | | 36 | 8 | 4 4 | | | | | | | | |
| C 11 b | 9 | 6 | 7 | 4 4 | | | | | | | | |
| S | 56 | 6 8 | | 8 8 | 3 | 3 | | 76 8 | 43 | 76 8 | 43 | 76 8 |

In Hodgkin's disease there is usually enlargement of other glands besides those in the neck, the adhesion to surrounding structures is less marked and the spleen is frequently enlarged. Caseation and necrosis have not been noted. Biopsy may be necessary for the diagnosis.

Branchial cysts may closely simulate large tuberculous abscesses. They are usually of long duration and there may be an external opening or dimple.

Thyroid enlargement is sometimes associated with tuberculous adenitis.

Malignant glands should not be difficult to distinguish.

In tuberculous adenitis there is usually a chronic swelling with periods of remission. At first the glands are discrete but later large masses caseation and abscess formation develop. Fever is common.

In the author's cases of fluctuant cervical abscesses incision and drainage are done. The abscess is curetted, swabbed with tincture of iodine and picked. X-ray treatment after this operation has been found beneficial. If the sinus does not heal it is dissected. Excision by the radical block dissection method has been practically abandoned except in a few malignant cases of tuberculosis in which the constitutional reaction to the infection is marked and radical interference is definitely indicated to stop the progress of the disease. In all cases the greatest care is taken to preserve the eleventh and twelfth nerves. Less serious cases receive heliotherapy or X-ray treatment for 6 months before operation is

considered. When in the cases of patients over 5 years of age small groups of glands become enlarged and the enlargement persists longer than months complete removal is done. In the author's opinion postoperative X-ray treatment is of definite value in all cases. It was given in 33 of the cases which the author reviewed. Secondary infection is resistant to it and when calcification is present it is not indicated.

Old sinuses should be dissected out. If this is impossible they should be curetted, closed around a drain and given X-ray treatment. The original source of the infection should be eradicated before the glands are treated.

No one plan of treatment will effect a cure in all cases. The use of heliotherapy, radiation and surgery should be adapted to the requirements of the particular case. For the average patient who cannot afford prolonged hygienic treatment surgery seems the method of choice. When operation is done great care should be taken to preserve the eleventh nerve and the lower branch of the seventh nerve. If the eleventh nerve is cut it should be sutured immediately. The operation of block dissection has been practically discarded because of the deformity resulting from paralysis of the trapezius. Secondary innervation from the upper cervicals is not to be relied upon for satisfactory function.

In the cases reviewed there was no operative mortality and the follow up of the patients has shown excellent results. JAMES B. BROWN, M.D.

MISCELLANEOUS

CLINICAL ENTITIES—GENERAL PHYSIOLOGICAL CONDITIONS

Levis D Spontaneous Gangrene of the Extremities 175 9 63

Spontaneous gangrene occurs in the old and the relatively young hence its clinical classification as senile and presenile gangrene. These two types are dependent upon entirely different processes one a degenerative process and the other an inflammatory process an arteritis or because of the almost constantly associated involvement of veins a thromboangitis. Pathologically arteriosclerosis and thromboangitis are distinct.

In 139 cases of spontaneous gangrene of the extremities reviewed by the author there were 47 cases of arteriosclerotic gangrene 43 cases of arteriosclerotic gangrene associated with glycosuria 7 cases of gangrene occurring in diabetic persons in whom the arterial changes if present were not pronounced enough to attract attention 14 cases of thromboangitis obliterans 1 case of scleroderma and 7 cases in which arterial changes may have been a contributory factor in the gangrene but the principal part was played by infection.

ARTERIOSCLEROTIC GANGRENE

The more frequent occurrence of gangrene in the lower than the upper extremities may be determined by the arrangement of the vessels in the lower extremity. Not enough attention has been paid to the extent or location of the thrombus or occlusion. Embolism or thrombosis of the popliteal artery is practically always followed by gangrene. Statistics seem to indicate that in 50 per cent of the cases of senile gangrene the large vessels of the extremities are occluded. In the 47 cases of senile gangrene cited there were 9 deaths a mortality a little over 9 per cent. Three of the patients died of pneumonia 3 of embolism and 1 of myocarditis. The cause of death is not stated. Two-thirds of the patients left the hospital with their wounds healed. The wounds of the other patients were granulating but they healed subsequently.

Amputation through the condyles—Cauden's transcervical amputation—is satisfactory in the cases.

ARTERIO SCLEROTIC GANGRENE WITH GLYCOSURIA (DIABETIC GANGRENE)

It has been conclusively demonstrated that hyperglycemia with associated metabolic change is not the only factor predisposing to gangrene.

In persons with diabetic arterial changes are common.

Accumulating evidence indicates that the so-called diabetic gangrene is due to arteriosclerosis. It is less dependent primarily on the same causes as arteriosclerotic gangrene but is complicated by hyperglycemia. The cases reviewed show that gangrene develops in diabetic persons about a decade earlier than in persons with uncomplicated arteriosclerosis. The average age at which gangrene appears in diabetic persons is 54.4 years while the average age at which senile gangrene appears is 66.2 years.

THROMBOANGITIS

Gangrene occurring in the relatively young—the presenile type—presents a different picture from arteriosclerotic gangrene with glycosuria. Its onset may be characterized by a transient claudication and symptoms referable to the deep vessels or by the appearance of a trophic change. One of the most striking changes is the extension of collateral circulation which may develop. While some collateral circulation may develop in arteriosclerosis it is not marked.

It seems probable that the clinical course of thromboangitis obliterans may be determined or modified by the site of the thrombus. A thrombus originating in the femoral artery and descending includes the cause of gangrene than a thrombus occurring in the ante tibial or posterior tibial arteries and ascending to the popliteal artery.

The indication in the treatment seems to be to force the collateral circulation ahead of the advancing thrombus. In 4 of 7 cases in which ligature of the femoral artery was done the vessels did not improve. In 1 which it was done after the development of gangrene subsequent amputation was necessary. In 1 case it was followed by death from pneumonia after 36 hours.

The pain of thromboangitis is due undoubtedly to a number of factors. It may be a true arterial pain. In 4 of the cases reviewed the pain was controlled. The operation places the inflamed artery at rest. The final result will depend upon whether not the collaterals which develop are diseased.

C. L. R. S. E. E. M. D.

Wom. K. N. A. Sibungual Melanoma II chin
n. M. I. tie W. I. to. I. K. S. 1973
6

The subungual melanoma appears to be a more frequent lesion than generally believed. Of twenty subungual melanomas treated at the Barnes Hospital St. Louis four were melanomas of the nail bed.

Of the four reported by Womack, two occurred on the thumb and two on the fingers. A history of trauma was given in two cases. Finger amputation was done in all instances and was supplemented by dissection of the axilla in two. Two patients were living and well two and four years respectively after the operation. In one case the condition recurred within eight months. One patient cannot be traced.

These lesions form black fungating ulcerating masses in which histologically two types of cells are to be distinguished: (1) spindle cells which form interlacing cellular masses containing a moderate amount of intracellular and extracellular pigment and (2) polygonal or spherical cells which frequently show mitoses and contain less pigment than the spindle cells. The author agrees with Bloch that these tumors are probably epithelial in origin.

When these tumors follow trauma as is often the case, they are usually not pigmented at first. Glomerular involvement may occur early or may be delayed for many years. Melanomata occur most frequently after the fortieth year of age and in the thumb. They are found next most frequently in the fingers and least frequently in the toes. Early amputation with removal of the regional lymph glands is advised. The prognosis is grave. Death usually results from metastases. MICHAEL L. MASON, M.D.

Slye M. Some Observations in the Nature of Cancer: Preliminary Report. Studies in the Incidence and Inheritability of Spontaneous Tumors in Mice. *J. Cancer Res. Clin.* 1927, 5: 133.

There are apparently two factors necessary to produce cancer: (1) an inherited local susceptibility to the disease and (2) irritation of the right kind and in the right degree applied to the cancer susceptible tissues. In her experiments on animals Slye has found these factors the only ones necessary for tumor formation. Accordingly she believes that there is no need of the assumption of a cancer germ.

By selective breeding Slye has produced resistant strains which among thousands of animals have never shown one instance of tumor of any sort, either malignant or benign. She has bred also mice which are susceptible to cancer and show only one type and one location of neoplasm, such as adenocarcinoma of the mammary gland, spindle cell sarcoma of the kidney, osteosarcoma of the leg bones, etc. The study here reported dealt with the latter.

Slye has been trying to eliminate either the cancer susceptible factor or the irritation factor to see whether cancer can thus be avoided. She found that in the case of a mouse which belonged to a resistant strain, a wound such as that caused by a blow from a cage door produced only scar tissue which eventually was partly or wholly absorbed, leaving no unfavorable results. The susceptibility to cancer is local, not systemic, and injuries only to those organs or tissues that are susceptible to cancer caused neoplasia. In animals susceptible to subcutaneous sarcoma, a rapidly growing sarcoma frequently fol-

lowed a body blow. In those susceptible to skin cancer, an epithelioma sometimes followed trauma. On the other hand, in animals not susceptible to breast cancer, no amount of trauma to the breasts would cause breast cancer.

These findings require heredity to explain them and are against the theory that cancer is due to a specific germ.

The mice which develop early breast cancers are uniformly among the largest and strongest specimens and show no signs of illness at the time of tumor development. The tumors grow to huge size with very little systemic change and only later, when infection and the absorption of dead tumor takes place, does cachexia develop. There is no germ disease in mice that is thus free from toxemias and consequent systemic change.

In general, cancer has not interfered with reproduction, whereas any infection seriously interferes with reproduction. In Slye's laboratory, no mother with any infection has ever brought to birth a large litter of strong, normally developed, noninfected young. On the other hand, previous to the time when secondary infections set in, or the cancers have broken down, the cancerous mothers uniformly have borne strong, uninfected young with a normal life span and normal reproductive potency. These healthy young born of and nursed by mothers with cancer never have cancer, either in infancy or later, if the father is resistant to cancer, as cancer resistance is dominant over cancer susceptibility. On the other hand, the nursing young of an infected mother commonly contract the infection. This is another marked contrast between cancer and known infections.

The general and special growth propulsion which pregnancy stimulates also seems to stimulate the occurrence of breast cancer in susceptible females. The growing embryo, however, soon takes precedence over the early carcinoma, as it does over everything else, and during the gestation period the tumor growth is retarded. Infection tends rather to decrease all growth processes, including those of the embryos.

In animals having an anteroposterior axis, growth is more rapid at the anterior pole of the axis. This parallelism obtains also in the growth of cancer in these animals. It has been noticed that nearly all internal tumors and breast cancers consistently show the greatest amount of growth along this axis or at the anterior pole of the anteroposterior axis of the tumor. Cancers in the anterior mammary gland, for example, generally show the most rapid growth at the anterior end, although there is more room for extension posteriorly. Cancer is but a mode of growth, probably of regenerative growth. There is no such relation between the rate of extension of inflammatory conditions and the anteroposterior axis or the anterior pole of this axis.

These facts, together with others such as the non-contagious nature of cancer, the multiplicity of

knowledge of the clinical findings or the microscopic appearance of the new growth. In 200 examinations there were only 9 errors and only 6 of the latter were serious.

The freshly cut surface of the tumor or other tissue is scraped with a scalpel and the milky juice so obtained is spread evenly on slides. While still wet the films are placed in Schaudinn's fluid where they are fixed for from two to ten minutes. On their removal they are washed first in alcohol and then in distilled water. Mayer's haemalum is used for the nuclear stain and eosin for the counterstain. The films are then dehydrated and cleared with absolute alcohol and xylol and coverslipped with Canada balsam. The specimen can be prepared for microscopic examination in ten minutes.

The results in the 200 cases examined are arranged in tables according to the organs and systems from which the specimens were obtained. With the exception of the nine errors the film diagnosis agreed with the paraffin section diagnosis especially as regards malignancy.

The authors emphasize that the perfect fixation of the wet cells in Schaudinn's fluid demonstrates the structural details in a manner not possible in paraffin sections. The cytological structure of malignant and other cells and the arrangement of the cells in the wet film preparation are described in detail. In the examination of postmortem specimens this method is unsatisfactory on account of autolysis.

The microscopic appearance of the tissue prepared by the method is shown in six photomicrographs.

J. EDWIN KIRKPATRICK, M.D.

Lewis, W. H. The Vascular Patterns of Tumors. *Bull. Johns Hopkins Hosp.* Balt. 1927, vol. 156.

Five different types of rat tumors were injected with 3 per cent India ink. From one to four tumors of each type were used with somewhat varying results as regards the completeness of the injection. The vascular patterns of each type of tumor were found to be very characteristic. Those of sarcomata are quite different from those of adenocarcinomata. The three different types of sarcoma differ from one another grossly, histologically and angiologically, and a glance at the vascular patterns is sufficient to identify each one.

The tumors studied arose spontaneously in Walker's rat colony in one strain of rats (Strain P).

The technical procedure was as follows:

Under ether anesthesia the thorax was opened and from 4 to 10 c.c. of blood were withdrawn from the heart with a syringe. Through an incision in the left side of the heart a cannula was introduced into the aorta and from 50 to 100 c.c. of 3 per cent India ink in Locke solution were run into the body with a gravity pressure of 10 to 3 ft. The tumors were then cut out and put into 10 per cent formalin. Free hand and microtomic sections were run through 50, 70, 80 and 95 per cent alcohol, cleared in modified Eycleshymer fluid (carbolic crystals



Fig. 1. Vascular pattern of spindle cell sarcoma. Capsule (c). Note absence of large afferent and efferent vessels.

one part oil of bergamot two parts and cedar oil two parts) and mounted in balsam. Ordinary hematoxylin and eosin sections were also made. Two fibrosarcomata, one spindle cell sarcoma, three round cell sarcomata, one adenofibroma and four adenocarcinomata were injected.

The vascular pattern has apparently nothing to do with central necrosis as noted in the adenocarcinoma. Necrosis is due apparently to failure



Fig. 2. a, b, c. Section of Walker round cell sarcoma. Capsule (c). necrotic center (n). Note terminal capillary plexus (P) near inner edge of living tissue. Between necrotic center and shell of living tissue is a dark band of microphages (d).

Fig. 3. below. Vascular pattern of Walker round cell sarcoma (Fig. 3). Note rich supply of afferent and efferent vessels in the thin shell of living tissue. A few capillary loops extend beyond the terminal capillary plexus (I) into degenerating area (d). Capsule (c).

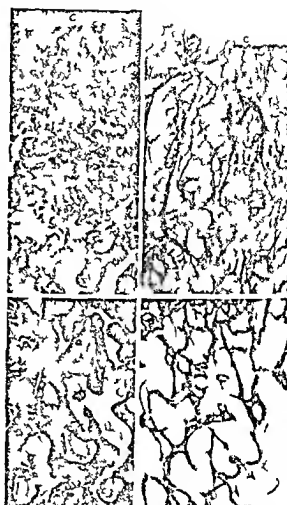


Fig 4 b S t f W l k d t b m
Fig 5 v c l p tte of t m Fig 4

of the endothelium to follow the growth of certain strands of tumor cells - carcinoma

It seems not unlikely that each type of tumor has a vascular pattern peculiar to it just as does each organ in the body. The diagnosis of the type of tumor can probably be made as easily from the vascular pattern as from ordinary sections

Fig 6 d l f t b a d b e l S t of W l k d
m Sup t a l a d d p C p l (c)
Fig 8 pp g h t v c l a p t t m f t u m o Figs 6
d 7
F q l g h t v l p tte f d e p g of
t m f F o d 7 Not d l l k c u r c l t n

The blood vessels do not determine the growth of the tumor but the tumor determines the growth and the pattern of the vessels

J H N J M A L M D

BIBLIOGRAPHY of CURRENT LITERATURE

NOTE.—THE BOLD FACE FIGURES IN BRACKETS AT THE RIGHT OF A REFERENCE INDICATE THE PAGE OF THIS ISSUE ON WHICH AN ABSTRACT OF THE ARTICLE REFERRED TO MAY BE FOUND

SURGERY OF THE HEAD AND NECK

Head

Complete avulsion of the scalp treated by dermo-epidermal grafts result after seventeen years. P. MOURE Bull et mém Soc nat de chir 1927 liv 1040

A pigmented nevus of the scalp in the form of cutis capitis gyrata. P. GORBANDT Arch f klin Chir 1927 clvi 644

The significance of premature ossification of the cranial sutures. A. MATERNA Zentralbl f Chir 1927 liv 386

The pathological anatomy of leontiasis ossea. H. MARX Beitr z path Anat u z allg Path 1927 lxxvii 50

Fracture of the skull following a radical mastoidectomy simulating brain abscess. H. I. LAMPE Laryngoscope 1927 xxxvi 725

The importance of roentgen examinations in the diagnosis of fractures of the skull. A. TROELL and I. HOLMSTROM Ann Surg 1927 lxxvii 502

A method for hæmostasis in trephinations of the skull and sinus injuries. A. S. WISCHNIEWSKI Arch f klin Chir 1927 clvi 544

Angioma racemosum venosum of the skull and brain. E. HERZOG Beitr z path Anat u z allg Path 1927 lxxvii 312

Sinus pericranii. A. BURGDORF 1927 Leipzig Vogel. Prevention and minor symptoms of sinus thrombosis with case reports. R. ALMOUR Arch Otolarynol 1927 vi 373

Thrombophlebitis of the lateral sinus complicating mastoiditis. C. G. CRANE, J. M. TAYLOR and H. H. PATRICK Sug Clin N Am 1927 vii 823

Reconstruction of smaller facial defects and lesions. P. PICKERILL Med J Australia 1927 ii 65

The operative treatment of local hyperhidrosis of the face. W. I. DROBOWSKI Zentralbl f Chir 1927 liv 881

A circular wandering flap in complicated plastic operation on the eyelids and face. W. P. FILATOW Arch f klin Chir 1927 clvi 609

A wound of Stenson's duct salivary fistula treated and cured by radiotherapy. R. MOVON and MOURE Bull et mém Soc nat de chir 1927 liv 94

A method of closing parotid duct fistulae. J. H. LUKOMSKY Zentralbl f Chir 1927 liv 1804

The structure and origin of the mixed tumours of the salivary glands. R. M. FRY Brit J Surg 1927 cv 29

Note on a new method of treating carcinoma of the cheek. N. PATTERSON Lancet 1927 ccviii 703

Rection of the lower jaw. H. GROSS Deutsche Ztschr f Chir 1927 cci 374

The use of healing of simple and complicated fractures of the lower jaw with particular reference to the mandibular canal and the teeth an experimental and histological study. K. GREVE 1927 Leipzig Thieme

A case of total resection of the lower jaw and its replacement by a prosthesis. ORATOF and STEPHANIDES Wien klin Wchnschr 1927 xl 581

The histological findings in complicated fractures of the jaw with particular consideration of the mandibular canal. GREVE Deutsche Monatsschr f Zahnheilk 1927 liv 458

Eye

Ophthalmological needs of the internist. H. BROOKS J Am M Ass 1927 lxxvii 120

Injuries to the eye. J. L. JENNINGS J Missouri State M Ass 1927 xiv 460

Golf ball injury hemophila optica. G. C. PENDERBIV and H. L. BEGLE J Michigan State M Soc 1927 xx i 68

The early symptoms of disease with special reference to the eye. A. M. RAMSAY Lancet 1927 ccviii 689

Ocular manifestations of gastrointestinal disorders. Lancet 1927 ccviii 815

Some of the more common causes of loss of vision in the light of their prevention. T. H. SINGLETON Kentucky M J 1927 xxv 582

Loss of vision with an endocrine phase. W. C. MOORE Virginia M Mo th 1927 liv 410

Headaches due to refractive accommodation and muscular anomalies. W. S. SIMS New Orleans M & S J 1927 lxxv 154

What glasses shall we prescribe after examination? R. H. COWLEY Kentucky M J 1927 v 566

The treatment of trachoma by surgical diathermy. D. C. KALLOCH J Am M Ass 1927 lxxvii 1511

Certain clinical problems relating to the lachrymal apparatus. I. G. CLARK Ohio State M J 1927 xxviii 819

Non-operative treatment of dacryocystitis. L. L. MCCOY Am J Ophth 1927 x 751

Secondary divergence. J. H. McKELLAR Am J Ophth 1927 x 63

Chronic conjunctivitis and nasal infection. N. FOX and E. DEUTSCH Am J Ophth 1927 x 757

Differential diagnosis between conjunctivitis neovascularis, infectious and conjunctivitis tularensis. C. PASCHOFF Am J Ophth 1927 x 737

Peritheloma of the orbit case report. R. W. BLEDSON Kentucky M J 1927 x 549

Neurinoma of the orbit. G. SCHMIDT Zentralbl f Chir 1927 liv 150

Echinococcus cyst of the orbit in a Chinese. H. J. HOWARD Am J Ophth 1927 x 2

Gynecological focal relation to scleritis and episcleritis and other ocular infections. L. M. MOLECH Am J M Sc 1927 clxv 439

The management of certain perforating wounds of the cornea with case reports. I. M. SYKES Texas State M J 1927 xxviii 404

Acute mastoiditis bilateral in an infant six months old weighing 8 lbs 6 oz hemorrhage from the nostrum of Highmore A I Buss Kentucky M J 9 xxx 55

Is mastoidectomy necessary in young children? I H Schwartz Arch Otolaryngol 1927 vi 353

Pre and post operative care of patients in connection with some commonly performed operations of otorhinolaryngology I LERNOUD Semana med 19 xxvii 114

Nose and Sinuses

Nasal deformities their prevention and correction following submucous resection presentation of cases J W MALINIAR Arch Otolaryngol 1927 vi 326

Result of operation for rhinophyma W A SHERWOOD Ann Surg 92 lxxvii 613

A de moid cyst of the dorsum of the nose citation of a case V K HART Laryngoscope 1927 xxxii 760

On the occurrence of brain tissue within the nose the so called nasal glioma D GUTHRIE and N DOTT Proc Roy Soc Med Lond 1927 xx 749 [89]

Nose bleeding treated by morphine S B WIGODER Brit M J 1927 ii 594

Vasomotor rhinitis a clinical study M J GOTTLIEB Laryngoscope 1927 xxxvii 719

Epithelial cyst of the floor of the mouth J R CAMERON and G V BOYKO J Am M Ass 1927 lix 1149

The relation between osseous and infectious scleroma of the respiratory passages F LASIGNA Arch internat de laryngol 927 xxviii 798

Chaulmoogra oil in the treatment of osseous G CLODGER I assegna internaz di clin e terap 1927 viii 537

Nasopharyngeal cyst of the Euschka's bursa W HENSON Laryngoscope 927 xxxii 746

Postoperative radium treatment of nasal polyp J C SEAL Laryngoscope 1927 xxxvii 735

The treatment of malignant tumors of the nasopharynx BARANGER Arch internat de laryngol 1927 xxxviii 87 [90]

Focal infections due to paranasal sinus disease E C POOS Clin Med & Surg 1927 xxxiv 750

Sinus infection by fusiform bacillus and spillum H M JAY Med J Australia 1927 ii 513

Radiography of the nasal accessory sinuses K S CROSS Med J Australia 1927 ii 569

Tumors of the nasopharynx and accessory sinuses the viewpoint of the general surgeon J G SHERKILL Kentucky M J 1927 xxxv 506

A case of ethmoidal suppuration M FITZMAURICE KILLY Proc Roy Soc Med Lond 1927 vi 183

Three cases of ethmoid disease W BROADBENT Lancet 1927 cc iii 866

Pecklinghausen's fibrous osteitis of the phenoid and ethmoid sinuses V SECURA and H ZUBIZARRETA Arch internat de laryngol 1927 xxxviii 816 [90]

Some observations on chronic phenoid ethmoiditis T A McGINNON Med J Australia Supp No 9 1927 74

Anomalous development of the phenoid J I KLEFFER Laryngoscope 1927 xxxvii 42

Physical therapy as an adjunct to surgical procedures in the nose and throat J McCOLL Laryngoscope 1927 xxxvii 56

Ionization and electrolysis in the nasal cavities F H B NORRIL J Laryngol & Otol 1927 xli 674

Mouth

The dangers of the indiscriminate removal of infected teeth I DEXTER Ohio State M J 1927 xxxii 311

Septic complications of dental extraction D CASTRO Med Ibera 1927 xi 304

Dental cysts C A McWILLIAMS New Orleans M & S J 927 lxxx 8

Odontomata with particular reference to the hard odontomata HEINRICH Deutsche Monatsschr f Zahnhe 1927 d 125

The operative treatment of congenital cleft palate G TSCHEMARKE Arch f klin Chir 1927 cxli 697

Discussion on the treatment of cleft palate by operation SIR J BERRY G GREY TURNER O J ADDISON M V

VEAU and others Proc Roy Soc Med Lond 1927 xx 1837 [90]

Cleft palate repair—the cause of failure in infants and its prevention S BUNNELL Surg Gynec & Obst 1927 xlv 536 [91]

The occurrence of mixed tumors in the soft palate F KOCH Wien klin Wchnschr 1927 xli 80

Changing concepts concerning oral sepsis E C POSENOW Kentucky M J 1927 xxx 59

Inflammations of the buccal mucosa A HENTZF Fortschr d Zahnhe 1927 iii 615

Ludwig's angina J F JENNINGS Ann Surg 1927 lxxvi 6

Note on Ludwig's angina LEONARDO Ann Surg 1927 lxxx i 626

A de moid cyst of the floor of the mouth J R CAMERON and G V BOYKO J Am M Ass 1927 lix 1149

The treatment of cancer of the mucosa of the cheek T HUEBERMANN Deutsche Ztschr f Chir 1927 cci cciv 33

A case of hypertrophic leucoplakia of the tongue treated by Soutta's cautery H C SEMIN Lancet 1927 ccviii 752

Cancer of the tongue W H SCHMIDT J Am M Ass 1927 lxxv 1321

The treatment of cancer of the tongue ue D C J FITZWILLIAMS Lancet 1927 ccviii 90 [91]

A needle for anesthesia of the maxillary nerve J CONNOLLY U S Naval M Bull 927 xvi 859

Pharynx

Experimental sore throat G F DICK and G H DICK J Am M Ass 1927 lxxv 135

Parapharyngeal abscess with complications R F NELSON California & West Med 927 xxv 518

A case of double septic peritonsillar phlegmon with gangrene of the tonsils C F R VERGES Semana med 1927 xxvii 65

Hypertrophy of the tonsils with cartilaginous nuclei L S MORENO Semana med 1927 xxvii 76

The advantages of local anesthesia in tonsillectomies in adults J C MACDONALD South M J 1927 xxv 77

Tonsillectomy with nitrous oxide-oxygen anesthesia M PRICE Anes and Anal 1927 vi 51

Tonsillectomy by electrocoagulation P H GRIFFITH Am J Surg 1927 ii 375

Case reports complications of local tonsillectomy McCLINTOCK and TRIBLE Laryngoscope 1927 cxvii 48

Specific retropharyngeal tumor and multiple gummatas E FOSTER and A PFLAUM Semana med 1927 xxv 829

Radium treatment of cancer of the pharynx and esophagus J CUSLZ Med J & Rec 1927 cxvii 50

Neck

A case of thyrotoxicosis M FITZMAURICE KILLY Proc Roy Soc Med Lond 1927 vi 1

Bilateral complete cervical fistula W WOODMAN and D K HUTCHINSON Am J Surg 1927 ii 377

A dermoid cyst of the left cerebral hemisphere G KOPRIWA Med Klin 1927 xvi 645

Brain tumors and their operative treatment BERGER and GULFEE Deutsche Ztschr f Chir 1927 ccm cciv 104

The surgical treatment of brain tumors a clinical study II OLIVECROVA and E von ISHOLM 1927 Berlin Springer

Intracranial complication of aural suppuration E B BARNES Proc Roy Soc Med Lond 1927 xv 190

Cerebral abscess of otitic origin W W WOODHOUSE J Laryngol & Otol 1927 xlii 685

Brain abscess complicating frontal sinusitis C J IMPERATORI Med J & Rec 1927 c xvi 401

Gas gangrene infection of the brain A PETERMANN Deutsche Ztschr f Nervenhe 1927 xvi 70

A case of lesion of the corpus striatum E SCOTT Proc Roy Soc Med Lond 1927 xv 1824

The quadrigemellar syndrome M R CASTEX and A F CAMAUER Rev oto-neuro-ophthalmol v de chirug neurol 1927 i 121

The significance of the iodine resorption test and the test for patency of the canal in surgery of the brain and cord particularly in determining the cause of and preventing the development of hydrocephalus after operations for spina bifida L HEIDRICH Beitr z klin Chir 1927 cxi 345

The treatment of hydrocephalus by ureterodural anastomosis B HEILE Zentralbl f Chir 1927 liv 1859

The operative exposure of tumors of the cerebellopontine angle R DFMEL and W SCHULZE Deutsche Ztschr f Chir 1927 ccm-cciv 168

Cerebellar hemorrhage cured by operation I KRON and W MINTZ Deutsche med Wchnschr 1927 lii 1034

Cerebellar abscess of otitic origin case report with autopsy findings S B MARAS Kentucky M J 1927 xx 536

A tumor of the cerebellum T PENDEL and J RIENHOLD Beitr z klin Chir 1927 cxi 353 Zentralbl f Chir 1927 liv 1385

A healed tuberculoma of the cerebellum M J STEWART J Path & Bacteriol 1927 xxx 577

Pituitary disease Brit M J 1927 li 735

Dysphotism with double optic atrophy (Cause?) D McALPIN Proc Roy Soc Med Lond 1927 xx 1839

Intuitory tumors Lancet 1927 ccviii 85

Paralysis of the associated movements of the eyes M BAIADO and L ADROGUE Arch argent de neurol 1927 i 8

Root section under local anesthesia for the radical cure of trigeminal neuralgia major W T COUGHLIN Ann Surg 1927 lxvii 494

The experimental anatomopathological basis of the surgical treatment of neuralgia of the trifacial nerve and the changes in the gasserian ganglion in retrogressive neurotomy I SCALONE Arch ital di chir 1927 xviii 69

Schwannoma of the auditory nerve J LLAMBIAS and G OROZCO Arch argent de neurol 1927 i 73

Spinal Cord and Its Coverings

Traumatic diseases of the spinal cord II STEINDEL Wien klin Wchnschr Spcial Supp 1927 xli i

Hydatid cyst involving the vertebrae and medulla of the cervical region sudden death from rupture of the cyst M R CASTEX R CAMAUER ARMANDO and A BATTRO I Soc de med intern J Soc de tissol 1927 iii 197

A subpleural hydatid cyst involving the spinal cord after having destroyed dorsal vertebrae R CASTEX MARIANO and F CAMAUER ARMANDO Rev Soc de med interna y Soc de tissol 1927 iii 177

Ligation of the anterolateral column of the spinal cord O HAIN Beitr z klin Chir 1927 cxi 32

Two children subjected to laminectomy because of adhesions in the dural space due to chronic meningitis SAUER BRUCH Zentralbl f Chir 1927 liv 1506

A case of medullary compression by primary tuberculous cervical pachymeningitis A BERNARD M HERMANGE and J DEICOUR Bull et mém Soc méd d hôp de Par 1927 liv 1277 [95]

The surgery of spinal cord tumors A W WISCHE NERASKY Zentralbl f Chir 1927 liv 1927

Tumors of the cauda equina and spinal cord G L BENNETT J Am M A S 1927 lxxviii 1480

Peripheral Nerves

Some paralyses which occur in childhood H T ASHBY Practitioner 1927 cvii 244

Diaphragmatic paralysis resulting from injury of the brachial plexus J W EPSTEIN Am J Dis Child 1927 xv li 634

Anatomical anomalies of the phrenic nerve and their influence on the effects of resection in pulmonary tuberculosis A PERERA Prog de la clin Madrid 1927 xi 335 [95]

Delayed paralysis of the ulnar nerve following fractures of the external condyle of the humerus L DESGOUTTES and R DENIS Press méd Par 1927 lxxviii 868 [95]

Sympathetic Nerves

Anatomical observations on the structure of the sympathetic nervous system I STOEHR JR Klin Wchnschr 1927 i 977

Contribution on problems which concern muscle tone in surgery SANCHEZ CÉSAR Prog de la clin Madrid 1927 xv 659

End results of ramisection in spastic paralysis S F STEWART J Bone & Joint Surg 1927 ix 724

The surgical treatment of functional disturbances of the vascular system F BRUENING Deutsche med Wchnschr 1927 lii 1041

Two cases of sympathicoblastoma B CAPALDI Frankfurt Ztschr f Path 1927 xxviii 83

The moistening of arterial vessels with alcohol as a substitute for sympathectomy N NASAROFF Arch f klin Chir 1927 cxvii 615

A critic of the operative therapy of angina pectoris based on a case of vocal cord paralysis following sympathectomy M G SFEITIG Am J Surg 1927 iii 315

The results of periaxillary sympathectomy according to an inquiry made among surgeons of Russia in 1926 S ROUBICHEFF Rev de chir Par 1927 xlii 341

Miscellaneous

Cerebrospinal fluid II H REESE Wisconsin M J 1927 xxxi 506

A study of the perivascular tissues of the central nervous system with the supravital technique L S KUBIE J Exp Med 1927 xlii 615

A telephone accident with symptoms of organic change in the brain and cord and its importance in legal medicine E TRAUTMANN Deutsche Ztschr f Nervenhe 1927 cxviii 63

Foci of infection and the central nervous system II H HOPPE Ohio State M J 1927 xxiii 827

The present status of the treatment of syphilis of the central nervous system J I MARKER J Iowa State M Soc 1927 xvi 358

Major thoracoplasty for chronic empyema two cases
J H GARLOCK Am J Surg 1927 ii 395
An expansively growing giant sarcoma of the plura
H NEVINNY Mitt a d Grenzgeb d Med u Chir 1927
vi 277

Heart and Pericardium

A case of dextrocardia L SCOTT Proc Roy Soc Med
Lond 1927 vi 1824
Constriction in the inferior vena cava at its orifice in the
right heart and its significance in the clinical picture of
adhesive pericarditis C ROHDE Deutsche Ztschr f
Chir 1927 ccm-cv 18
A fibroma of the heart M TEUSCHER Frankfurt
Ztschr f Path 1927 lxxiv 751
The direct diagnosis of pericarditis with effusion C G
DYKE U S Naval Med Bull 1927 xiv 804
Adhesive pericarditis and its surgical treatment W
KOENNECKE Muenchen med Wchnschr 1927 lxxiv 675
A cure of purulent pneumococcal pericarditis by epi
gastric pericardotomy L RAMOND and R WEILL SPIRE
Bull et mém Soc méd d hôp d Par 1927 xlii 1163
[99]

Oesophagus and Mediastinum

Three cases of foreign bodies swallowed by children
G MORGAN Proc Roy Soc Med Lond 1927 vi 1825
Removal of foreign bodies from the thoracic portion of
the oesophagus by gastrotomy J MAJANZ Arch f klin
Chir 1927 cxi 413
Unusual complications following oesophageal injuries
from foreign bodies and other causes and some recent

genological observations W KINDLER Ztschr f Hal
Nasen u Ohrenheilk 1927 xiv 1
Contribution on the treatment of oesophageal strictures
L LURZ Wien klin Wchnschr 1927 vi 789
Autodilatation in cicatricial stenosis of the oesophagus
G PORTMAN Laryngoscope 1927 xxxvii 75
Diverticulum of the oesophagus SAUERBRUCH Zentralbl
f Chir 1927 liv 1508
A combined treatment for cancer of the oesophagus
P N CORYLLOS and I I KAPLAN Am J Roentgenol
1927 xviii 328
Experimental surgery of the oesophagus G L CAR
RINGTON Ann Surg 1927 lxxvi 505
Dermoid cyst of the mediastinum S L CALDWELL
Arch Surg 1927 xv 660
Teratoma of the mediastinum M F KAVANAUGH
California & West Med 1927 xxvii 518
Dystopia cruciata thymii P SCHNEIDER Beitr z path
Anat u z all Path 1927 lxxvii 449
A case of life threatening, thymic hyperplasia in a new
born infant cured with the roentgen ray N TEMESVARY
Zentralbl f Gynaek 1927 li 1248

Miscellaneous

Discussion on the rays in the diagnosis of intrathoracic
growths S MELVILLE and others Brit M J 1927 ii
725
Medical treatment of diseases of the chest in children
H C BERGER Nebraska State M J 1927 vii 37
Primary intrathoracic malignancy J M PERRET New
Orleans M & S J 1927 i 213

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

Subcutaneous rupture of the abdominal wall simulating
a hematoma H M HARRICHSEN Zentralbl f Chir
1927 liv 1757
The clinical features and treatment of panniculitis
V COVRES Med J & Rec 1927 cxxvi 409
Operation for fat abdomen with preservation of the
umbilicus J FRIST Wien klin Wchnschr 1927 vi 873
A heterologous benign hypernephroma in a hernial sac
F PAOLICCI Ann ital di chir 1927 vi 666 [100]
Spinal anesthesia in a case of strangulated hernia
LEMERVIER and BOVAMY Bull et mém Soc d chirurgi ns
de Par 1927 ix 510
An unusual case of umbilical hernia in an infant E C
BOWDEN Brit J Surg 1927 xv 337
A case of ventral hernia M FITZMAURICE KELLY Proc
Roy Soc Med Lond 1927 vi 185
Strangulated diaphragmatic hernia with burst sac at ninety-one
years of age operation and recovery C E CORLETTE
Med J Austral 1927 ii 582
Oblique inguinal hernia—a fundamental factor in its cure
G A WALL J Oklahoma State M Ass 1927 vi 279
Plastic material for operations for inguinal hernia
B ULRICHS Zentralbl f Chir 1927 liv 1208
The ideal in herniorrhaphy a new method efficient for
direct and indirect inguinal hernia W W BABCOCK
Surg Gynec & Obst 1927 xlv 534 [100]
The peritoneum R R BEST Nebraska State M J
1927 xii 379
The relation of the peritoneal mesothelial cells to the
products of ascites G HELLER Bull Johns Hopkins
Hosp Balt 1927 xli 207

Symptoms of perforation peritonitis in a diabetic W
USAOEL Zentralbl f Chir 1927 li 1364
Surgery of the peritoneum W KOERTE 1927 Stuttgart
Enke
The surgical treatment of tuberculous peritonitis LER
LONG J Oklahoma State M Ass 1927 vi 277
Caecostomy combined with drainage in the treatment of
acute infectious peritonitis L VAN ERPS J de chir et
Ann Soc bel e de chir 1927 p 98
Chronic fibrous epiploitis A C MACONIE Brit M J
1927 ii 733
Ovarian cysts in the omentum in a case of fixed retroflexion
of the uterus with a perforation scar in the appendix
G BODECHTEL Zentralbl f Gynaek 1927 li 1500
Chronic inflammatory tumors of the omentum K
GULTIC Beitr z klin Chir 1927 cxi 370
Cystic hamelymphoma of the great omentum
ISELIN Bull et mém Soc d chirurgiens de Par 1927
xix 569

Gastro Intestinal Tract

Obstructive lesions of the gastro intestinal tract A J
GRANT Canadian M Ass J 1927 xvii 1149
Bleeding from the gastro intestinal tract caused by
benign polypoid tumors report of cases J M MARCUS
Am J Surg 1927 vi 342
The avoidance of the formation of dangerous closed dead
spaces in gastric and intestinal surgery A L SORESI
Deutsche Ztschr f Chir 1927 cxi 193
The relation of gastric function to the chemical composi
tion of the blood a preliminary report F L APPERLY
and K SEMMENS Med J Australia 1927 Supp 5
p 153

- Resection after gastro-enterostomy R GOEDECKE
Fortschr d Therap 1927 iii 390
- Our experiences with the von Petz gastro intestinal
suturing apparatus J LOESSL Zentralbl f Chir 1927
h 1547
- Gastric secretion after partial gastrectomy E KLEIN
J Am M Ass 1927 lxxxix 1235
- Gastric secretion after subtotal gastrectomy E KLEIN
Am J Surg 1927 iii 385
- Antecolic Pólya resection of the stomach with entero
anastomosis C L GIBSON Am J Surg 1927 iii 391
- Intestinal obstruction from hydropyonephrosis in an
ectopic horseshoe kidney transperitoneal nephrostomy
recovery from the obstruction secondary heminephrectomy
and final recovery CARVEN and CADENAT Bull et mém
soc nat de chir 1927 lii 905
- The diagnosis of intestinal obstruction by the roentgen
ray W K KALBFLEISCH Am J M Sc 1927 cxliv 500
- Further observations on the use of hypertonic saline
solution in acute intestinal obstruction E P COLEMAN
Ann and Anal 1927 vi 210
- Intestinal myomata A PLENK Wien klin Wchnschr
1927 i 556
- Studies of the use of ascen for the restoration of
intestinal tonus after laparotomy W NEUWEILER
Schweiz med Wchnschr 1926 lvi 119
- Volulus of the small gut cecum and ascend n colon
associated with congenital reversed rotation of the intestine
and with pregnancy C DONALD Brit J Surg 1927 xv
269
- Congenital occlusion of the small intestine S E
CROSSKEY Brit M J 1927 ii 787
- Postoperative ileus J A GUNY Canadian M Ass J
1927 viii 154
- The use of spinal anesthesia in postoperative ileus L S
Woods Med J Australia 1927 v 545
- The treatment of ileus E GOIRBAND Klin Wchnschr
1927 vi 100
- Intussusception terminating in spontaneous eliminat
ion report of a case with complete recovery L D
THOMSON Am J Dis Child 1927 xciv 610
- A remarkable explanation of a case of apparently
spontaneous cure of an intussusception TRENDLEN Klin
Wchnschr 1927 vi 1000
- The diagnosis is of intussusception in children VOGELER
Ze tralbl f Chir 1927 liv 160
- The treatment of intussusception in infants L FINKEL
STEIN Deutsche med Wchnschr 1927 liii 143
- Acute intussusception in the adult PERDOUX and
CADENAT Bull et mém Soc nat de chir 1927 liii
918 [104]
- Self produced fistula of the small bowel W BIRKEN
FIELD Zentralbl f Chir 1927 lv 1875
- The duodenal tube and its practical value Lancet
1927 ccviii 918
- Megalo duodenum periduodenitis H GROVE A
SCHOFHEER C SORROLA and B ARCE Bol Soc de
cirug de Chile 1927 v 106
- Roentgen diagnosis of duodenal lesions H P SEAR Med
J Australia 1927 Supp 8 225
- A duodenojejunal diverticulum as the cause of acute
intestinal obstruction A KROGUS Deutsche Ztschr f
Chir 1927 cc 273
- The duodenogram applied to the demonstration of a
duodenojejunal diverticulum J BUCKSTEIN Am J
Surg 1927 iii 340
- Duodeno palsy M S SHAYNE Med J & Rec 1927
cx vi 434
- Duodenal stasis A R BLOOM and I A ARENS J
Am M A 1927 lxxviii 1330
- Chronic duodenal obstruction H J WHITACRE J
Med Cincinnati 1927 viii 370
- A case of acute duodenal ileus following nephrectomy
lasting eight days with recovery S A WALLACE Cana
dian M Ass J 1927 xvii 1199
- Duodenal ulcer E S JUDD Northwest Med 1927
xxvi 48 [104]
- Perforated ulcers of the duodenum a report based upon
twenty seven cases E C BRENNER Am J Surg 1927
iii 381
- Perforated duodenal ulcer simulating common duct
stone gastrojejunocolic fistula E C BRENNER Am J
Surg 1927 iii 388
- Perforated duodenal ulcer dehiscence of wound per
forated duodenal ulcer acute appendicitis two and one half
years postoperative perforated duodenal ulcer recurrence
of symptom within three months J W HINTON Am J
Surg 1927 iii 389
- Indications for the surgical treatment of duodenal ulcer
L D POWELL J Iowa State M Soc 1927 viii 348
- The surgical treatment of duodenal ulcer O F LAMSON
Northwest Med 1927 xxvi 486
- A new method for closing the duodenal stump after
gastric resection S KATAOKA Arch f japan Chir 1927
iv 271
- A further contribution on the origin of postoperative
jejunal ulcer K BLOND Arch f klin Chir 1927 cxliv
245
- The peptic ulcer of the jejunum and palliative resec
tion of the stomach E KREUTER Zentralbl f Chir
1927 liv 1504
- Peptic ulcer of the jejunum following gastric operations
in Spain L URRUTIA Arch f Verdauun s Kranh
1927 xl 339
- The ileocolic sphincter a contribution upon the study of
its function roentgenological observations R BROUCA
Rev Soc argent de biol 1927 iii 547
- A case of obstruction due to a Meckel's diverticulum
C M FINNY Brit J Surg 1927 xv 39
- Perforation of Meckel's diverticulum J A BERRY
Brit J Surg 1927 xv 331
- A case of invagination of the ileum into the caecum
Hinz Zentralbl f Chir 1927 liv 16
- Ileo ileal intussusception in the adult caused by a sub
mucous fibroleiomyoma resection and end to end anasto
mosis cure BOTREAU ROUSSEL and CADENAT Bull et
mém Soc nat de chir 1927 liii 921 [105]
- Redundant colon H GAUSS Arch Surg 1927 xv 560
- Hirschsprung's disease J R GRIFFITH Proc Roy
Soc Med Lond 1927 xx 1824
- Volulus neonatorum due to anomalous intestinal rota
tion PRINKERTON Ann Surg 1927 lxxvii 626
- Volulus due to ascariis M ROSENTHAL Zentralbl f
Chir 1927 liv 1806
- Colic intussusception E D TRUESDELL Am J Surg
1927 v 398
- The process of healing and cicatrization in the colon
obliteration of the colon as the result of colitis the indica
tions for operation in these cases A W FICHER Arch
f klin Chir 1927 cxvi 19
- The causes of chronic constipation H STEINDL Mitt
d Volk gesundheitsamtes 1927 p 223 Wien klin
Wchnschr 1926 x cx 1457
- The surgery of constipation H KUNTZEN Ergebn d
Chir u Otoph 1927 xv 606
- Experimental study of the action of fluid paraffin on the
bowel E KONDOLEON and G JOANNIDES Muench med
Wchnschr 1926 lxxv 1356
- Toxic diarrhoea of parenteral origin J A CRAWFORD
New Orleans M & S J 1927 i cx 254

- A clinical evaluation of cholecystography by the oral administration of tetraiodophenolphthalein: a summary J H KING and L MARTIN Bull Johns Hopkins Hosp 1927 xli 19
- A new standard for the van den Bergh test B W PHAHEY and P H ADAMS J Lab & Clin Med 1927 viii 87
- The relation between cholesterolemia and deposits of cholesterol in the gall bladder: an experimental study F E BLAISDELL and L R CHANDLER Am J M Sc 1927 clixiv 492
- Cholesterosis of the gall bladder L S JUDN and S H MENTZER California & West Med 1927 xxvii 487
- Chol cystitis E F MIELLE Wisconsin M J 1927 i 507
- Cholecystitis with associated pancreatitis P BRINCKMAN Brit M J 1927 ii 734
- The clinical picture of gall bladder lesions and their treatment W CUNO Deutsche Ztschr f Chir 1927 cccii cci 257
- Gall stones of unusual type W P STOWE Brit J Radiol 1927 vi 367
- A case of cholelithiasis L VACCARO Med J & Rec 1927 ccxvi 433
- Erosion of a gall stone S GRAEFF Beitr z path Anat u z allg Path 1927 lxxvii 37
- Problems in gall bladder surgery I S RAVDIN J Med Cincinnati 1927 viii 384
- Some points in the surgery of the gall bladder W H C ROMANIS Practitioner 1927 cxix 225
- Cholecystectomy R I ROWLANDS Sur., Gynec & Obst 1927 xlv 518
- Subperitoneal cholecystectomy L P WHITAKER Boston M & S J 1927 cxc ii 657
- A calculus of the biliary passages F NEUGEHAUER Beitr z Klin Chir 1927 ccl 332
- The dividing line between surgical treatment and balneotherapy in diseases of the biliary tract T VON VEREDEL Karlsruhe berzt Vortraege 1927 iii 455
- Intra-abdominal drainage of the bile ducts K HUTTER Arch f Klin Chir 1927 cxlvi 332
- Side tracking operations for bile duct obstruction A O WHITTLE Ann Surg 1927 lxxvii 540 [107]
- Injury to the common bile duct with repair T H RUSSELL Am J Surg 1927 iii 39
- Stenosis of the common duct due to calculi and new growth L AGUILAR Bol Soc de cirug de Chile 1927 v 166
- Ileostic operations on the common duct P VALENZUELA Bol Soc de cirug de Chile 1927 v 174
- A contribution to the clinical importance of accessory pancreas of the stomach and on the question of so called Brunner's adenoma II HILAKOWICZ Zentralbl Chir 1927 lix 1610
- The study of the external function of the pancreas in cholecystitis and gastroduodenal ulcer by means of a simple and frictional examination of the duodenal juice I LUCASCO Arch Ital di chir 1927 vi 407
- Regeneration of the pancreas G R CAMERON J Path & Bacteriol 1927 xxx 713
- The prognostic value of the Wollin test (increased diastase in the urine) in acute diseases of the pancreas I UNGER and H HEUSS Zentralbl f Chir 1927 li 770
- Acute pancreatitis due to a gall stone obstructing the duct of Wislizenus: report of a case F I BARNES Texas State J M 1927 cxiii 331 [108]
- Acute pancreatitis: report of a case L W FRANK Kentucky M J 1927 xlv 56

The diagnosis of acute pancreatic necrosis from the diastase in the urine W ROLOFF Deutsche med Wchn chr 1927 lix 1043

Clinical contribution on acute pancreatic necrosis R SCHWEIZER Schweiz med Wchnsch 1927 liii 516

The pathology of acute pancreatic necrosis E RUPPINER Schweiz med Wchnsch 1927 liii 503

The after-effects of acute pancreatic necrosis W SEBENING Med Klin 1927 cxviii 551

When should acute pancreatic necrosis be operated upon? L FIDLER Zentralbl f Chir 1927 lix 1356

A case of pancreatic carcinoma in a cat F SCOTT and R A MOORE J Cancer Research 1927 vi 15

Traumatic rupture of the spleen F A KOLTS U S Naval M Bull 1927 xxv 808

The treatment of essential thrombocythemia by splenectomy W SCHWAB Deutsche Ztschr f Chir 1927 cccii cci 6

A severe anemic condition in splenectomized rats permits anemia of rat I LAUDA Klin Wchnsch 1927 lix 1587

Miscellaneous

Abdominal wounds and injuries L W JOHNSON U S Naval M Bull 1927 xxv 86

Abdominal palpation in the vertical position F F WHEATLEY and S W LLESWORTH Boston M & S J 1927 cxvii 713

The palpation of the abdominal viscera with the body flexed anteriorly W BERGMANN Beitr z Klin Chir 1927 cx 15

Viscerostasis: a factor in the neuroses W S HORN Texas State J M 1927 cxviii 363

Torsion of abdominal viscera II R DUDLEY Texas State J M 1927 cxiii 388

Clinical case complicated by purpura F R SMITH Boston M & S J 1927 cxc i 658

An antitoxic colon bacillus serum M KATZENTSTEIN Zentralbl Chir 1927 lix 1474

A new antitoxic colon bacillus serum made by the Behring Company of Marburg II SCHMIDT Zentralbl f Chir 1927 lix 1477

Abdominal pain in childhood II BAER Med Klin 1927 cxvii 767 804

The occult mesenteric pressure pain (Pansen's pressure pain) M COHN Beitr Klin Chir 1927 cxlv 123

Mesenteric lymphadenitis simulating an acute abdominal condition I J BELI Surg Gynec & Obst 1927 xlv 465

Acute abdominal distention A I HERTZLER Am J Surg 1927 li 346 [108]

Acute conditions of the abdomen complicated by ilio- or sigmoiditis of the peritonium D MACRAE Jr J Am M A 1927 lxxix 113

The timing test for acute abdomen C L G CHAPMAN Brit M J 1927 vi 786

Attempts to demonstrate the blood and lymph channels in experimental ileus W SCHULTZ Deutsche Ztschr f Chir 1927 cccii cci 189

Diagnostic abdominal puncture I FRANGENHEIM Deutsche Ztschr f Chir 1927 cccii cci 280

Experimental investigations on the influence of the autonomic nervous system on absorption from the abdominal cavity C STAHNKE Arch f Klin Chir 1927 cxlvi 1

Drainage of a pelvic abscess per rectum II BAILEY Lancet 1927 ccvii 54

Drainage of ascitic fluid D N KALYANALA Brit M J 1927 xx 595

Reconstructive surgery on the fallopian tube F
UNTERBIRGER Deutsche Ztschr f Chir 1927 cxi
cciv 32

The malignant tumors of the tubes F ZWEIFEL
I regnb d Chir u Orthop 1927 xv 507

The uterine lobe of the hypophysis and the ovaries
The relation of the endocrine glands to ovarian function
B ZONDEK and S ASCHHEIM Arch f Gynaek 1927
ccv 1

Incarcerated sliding hernia of the ovary A MARCONI
Wien Klin Wchn chr 1927 1 389

Intersplenic resection of the ovary for uterine hemorrhage
of ovarian origin I ISBRUCH Klin Wchn chr 1927 vi
995

Our experiences with ovarian resection K VOLKMAN
Ztschr f Geburtsh u Gynaek 1927 xci 121
Ovarian thrap W P GRAVES J Am M Ass
1927 lxxv 1308 [112]

An unusual finding in the ovaries X-rayed of rabbits
a contribution on the biology of the action of irradiation
II V KLEIN Strahlentherapie 1927 xiv 443

The fat metabolism of the corpus luteum and its relation
to its function C KAUFMANN and K RAETH Arch f
Gynaek 1927 ccv 128

Menstrual bleeding and the functions of the corpus
luteum J B DAWSON Med J Australia 1927 ii 406

The determination of the hormone content of corpus
luteum preparations M The female sex hormone S
LOEWE and F LANGE Arch f exp Path u Pharmacol
1927 c 48

Animal experiments with regard to the action of corpus
luteum substances on ovarian function A MAHNERT
and H STEGMUND Wien Klin Wchnchr 1927 vi 281

Ovum and hormone B ZONDEK and S ASCHHEIM
Klin Wchnchr 1927 vi 1321

Ovarian hormone and ovum A MAHNERT and H
STEGMUND Zentralbl f Gynaek 1927 li 1626

In the therapeutic injection of organ extracts are we
justified in designating the result hormone action?
LUECKE and VON MERTZ Deutsche med Wchnchr
1927 liii 1172

Hormonal sterilization of female animals III Feeding
experiments with ovarian and placental extract L
HABERLANDT Arch f d ges Physiol 1927 ccvii 55

The female sex hormone menomorphin X The feminizing
influence of menomorphin on the undeveloped mammary
glands E LAQUEUR S E JONGH and M TAUSS Deutsche
med Wchnchr 1927 liii 867

Studies on the ovarian hormone in the blood of pregnant
and non pregnant women R T FRANK Klin Wchn chr
1927 i 188

Elimination of disagreements with regard to the ovarian
hormone E LAQUEUR S E JONGH and M TAUSS and
B ZONDEK Klin Wchnchr 1927 i 382

The proof of the water solubility of the ovarian hormone
B ZONDEK Klin Wchnchr 1927 vi 1046

A review of the methods of determining the efficiency
of the ovarian hormone F ULLMANN Ztschr f d ges
exper Med 1927 lv 487

Acute surgical conditions of the ovary C B EPPS
South M & S 1927 lxxvi 693

Severe intra-abdominal hemorrhage from the right ovary
in a case in which operation was done for acute appendicitis
O THOMANN Zentralbl f Chir 1927 liii 129

Calcareous concretions probably of ovarian origin
simulating ureteral or vesical calculi M PAPP d urol
med et chir 1927 in 525 [112]

Proliferating multilocular cystadenoma of the ovary
in a girl of fourteen J W PRICE Internat J Med &
Surg 1927 xl 402

Malignant degeneration of implants in the abdominal
wall following the extirpation of papillary tumors of the
ovary R TAUBER Zentralbl f Gynaek 1927 li 1505

Carcinoma of the ovary F E KELNE II K JANCOAST
and E P PENDERGRASS J Am M Ass 1927 lxxix
1053 [113]

Metastatic carcinomatous tumors of the ovary P
KUTSCHERENKO and T SCHWEDKOVA Frankfurt Ztschr
f Path 1927 ccv 59

Ovarian metastasis with cancer of the uterine body
Is transubal implantation an important factor? L
NOVAK Am J Obst & Gynec 1927 xiv 470 [113]

Ovarian sarcoma and tuberculosis of the peritoneum
K ATZERODT Monatschr f Geburtsh u Gynaek 1927
lxxvi 82

External Genitalia

Accessory breasts in the labia majora R PURVES and
J A HADLEY Brit J Surg 1927 xv 279

The so called multiple idiopathic pigmented sarcoma of
the vulva A GARBIEU Zentralbl f Gynaek 1927 li
1450

The normal monthly cycle of the human vaginal mucus
K DIERSCH Arch f Gynaek 1927 ccv 46

Atresia of the vagina with menses retained to the age of
twenty six years A GOLCH Brit M J 1927 xv
595

The formation of an artificial vagina by the method of
SNEGIRFF M SCHARAPO Zentralbl f Gynaek 1927 li
1131

An operation for the formation of an artificial vagina
from the small bowel V LEBEDEFF Monatsschr f
Geburtsh u Gynaek 1927 lxxvi 294

A case of vaginoplasty with the use of the rectum accord-
ing to the technique of Schubert J NOVAK Zentralbl f
Gynaek 1927 li 1340

An artificial vagina formed by the method of Schubert
unusual cases several labors through the rectal vagina
G A WAGNER Zentralbl f Gynaek 1927 li 300

Persistent vaginal discharge in infants and in little
girls cause and treatment G C SCHAUFFLER Am J
Dis Child 1927 xxxix 644

Transplantation of the ureters into the bowel to secure
sphincteric urinary control in incurable vesicovaginal
fistula R PETERSON Am J Obst & Gynec 1927 xiv
492 [113]

A primary melanosarcoma of the vagina A MULZER
Arch f Gynaek 1927 ccv 342

Case reports of genital injuries sub costu G BAKSCHIT
Zentralbl f Gynaek 1927 li 1333

A case of urethral injury during coitus E HANSNANN
Zentralbl f Gynaek 1927 li 193

Miscellaneous

Handbook of gynecology for physicians and students
I OPITZ 1927 Munich Bergmann

Outlines of gynecology P ZWEIFEL and I ZWEIFEL
1927 Berlin Stike

Principles of gynecology P ZWEIFEL and E ZWEIFEL
1927 Berlin Stike

Handbook of gynecology Ed 3 Vol 2 J VEIT
Hygiene and dietetics H SELLHEIM The bases of inheri-
tance J MEISNERHEIMER 1926 Munich Bergmann

Some gynecological thoughts C B KELLEY J Med
Soc N Jersey 1927 xiv 569

Gynecology and internal secretion B ASCHER 1927
Budapest Novak

Toxic goiter in its relation to the gynecological patient
R R SMITH Am J Obst & Gynec 1927 xiv 518

Sten ty in wom n with sug tions fo t atment L
 E McCaffrey J Michig n State M S 97 xxv 64
 Th rlt ship of de eas f th g sto nt ti l
 t t t d ases f the fem l produ tive gans E
 v c Med Klinik 96 xxi 949 986
 What th most f q nte u fl mb w man?
 F KERMAUNER W n kln W h n ch 197 156
 Co t b to n the boh mstry f m n tru t n K
 KLAUS B h m Zt hr 97 lxxv 3
 Then rmala dp th l phy logy f m n tru t n
 L FRAENKEL B h ft M d Kh 97 xxi 53
 I m n tru al bl ding n ces ry f the h lth f wom n?
 B ASCHER Z t l bl f Gyn k 97 l 577
 I m n tru l bleed g ncs ry f the h lth of th
 f msl? W LA ZAO Z nt l bl f Gyn k 97 l 359
 Th l poid f the m n tru al bl d A HERMSTE N
 A h f Gyn k 9 cxx 8
 M n tru at on nds d M S INER D ut h med
 W h n ch 96 l
 S me p bl m f the m n tru l fu t n th b
 atio n th lat f the f f l l d rpus
 lut um t p thol g l t h m h B W h
 HOUSE E d u b u gh M J 97 x Edinb gh Ob t
 So 39 [114]
 P l m y t b ul o d th m n tru l cy l F
 H ESE B t Kln d Tut k 97 l v 395
 Dy m n her L GRAVE K nt ky M J 97
 x 58
 Eph d (M r k) t m ul nt f th ymp th t s n
 gy l y p t ul a ly n dy m rhoe O LANG
 Z t l bl f Gyn k 97 l 43
 Exp n s vith p m p n d m hce and
 th p t ndit f th g t l n ry ndd
 t o TECH M n h n m d W h h 97
 lxx 76
 V m n d t ton n g t dy m hce
 KOTKE F t h d M d 97 l 469
 D therm y nd m n tru t th p t ul f n
 t th u of d th m y n dy m rhoe I VON DUBEN
 Z t al bl f Gyn k 97 l 44
 M n tru l d t b n th f d I
 Sh n d as d t f qu t d ty m stru t
 B A CHER W n kln W h n h 97 l 545
 A f m n h g n tal m y oed m
 W SCHLOSS W n kln W h h 97 l 8
 Tl n u g d f f m l hyp ul m d th
 l b lty f il n g th d n th p ut lly
 P SIPPET Z t l bl f Gyn k 97 l 75
 Ab n c f th g n t l s n g l T H Rus LL
 Am J Sug 97 39
 True h m ph di m a nt but n th mp t
 f th g n at gl nd th d term t f G A
 WAGNER Z nt l bl f Gyn k 97 l 34
 Deg t n f th gl nd m f p ud h
 m phrod m H RINCK Zt h f K n t t ut n l 97
 l 9
 Th t atm nt fl o hce A FINALSS D ut ch
 m d Weh n h 97 l 96

The t e m nt f leuc rrhoe nth gyn l a
 dou h H HEIDLER Wien med W h n ch 9
 lx 4
 The t e m nt of leuc hce w th sl nstrat o t
 m nt HARTOG M d Kln 197 x 756
 G rrhoe nth f m le Ate thook f phy an d
 t dent R FRANZ 197 V n n Sp ge
 Th dag os f g r hce with the g n t t G
 KREBS V h d d d ut h Ge ll h f U l 10
 375 389
 D t m nt n f the d ty f th va n al ser u
 n c r v l g o hce a d the d gn t l f
 th g n test c t n A HEYN Mu h d
 Weh n ch 97 lxxv 7
 Th ur of h c g no hceat the f m al bym f
 gle ub utancou j ction f h e g
 Lo SER Am J Ob t & Gyn 97 30
 I dicat n f r su g al t r v t p l c l f
 infect g A H CURTIS J Am M Ass 9
 lxx 91
 Th t p phy and l nical perts f tum f th
 f m al g n t l a G PAROLI Ra t l d i g c 197
 237 [114]
 Cl m l bs ry t s of h t o p c p th l g th
 K VON OE INGEN Z t al bl f Gyn k 97 l 63
 Per n le d m n t r o i d et the m stru l d m
 t n f n d m t r i t n t the p e r t o l a t y J A
 S u s o w Am J Ob t & Gyn 197 4
 Th q n f Sampson t m s f hce
 Z nt l bl f Gyn k 97 l 70
 I d t n f f m th tandpo to f th gy l
 g t W FURST S h m d Weh n ch 97 l
 59
 Rad t n th apy n gynec l gy H S AND 20
 R d l R & Chi g M d R c 97 l 38
 Th u of d m n gy l y H LYME St Al n
 th p 97 xxvi 6
 R d t t m nt f n m l g n t d f th
 f m l rel S C B a r o w N w Orl n M & S J
 97 lxx 3
 Th t g n ay beni gyn c l l d M
 E HANKS Ill M J 97 l 38
 Th p nt st f d p t g th py gyn l
 gy K H ROLD D t h med Weh n h 97 l
 84
 Th n w e t l a e th d d w th rt (E)
 gyn l gy d ob t W BENTIN D t h
 m d W h n h 97 l 955
 Th dg f l n l f th g th rula
 th r v l b t d th p t p t A
 MA DEL AMM Z t l bl f Gyn k 97 l 7
 Th lymph t g n f c tan yst f m at n th
 p l f l l g t o l c t a t f th fem le A HAM 7
 a d L CORNELL B l l S d b t t d gy f c d p [115]
 97 488
 S a u m lat n th p l v i f l l ng p t
 A G TIL MIN B l l S c d b t t d gynec d p [115]
 97 vi 487

OBSTETRICS

Pegn ncy nd Its Compl cati ns

C t c l m k n v g l t t f pegn n y I
 JAL LEFF Z nt l bl f Gyn k 97 l 455
 Th d i a n t l b lity f th H f t t C l l n
 H Mendalls R HO STAEYER Z ntr l bl f Gynack
 97 l x

Th d t n f p g cy A LA HARDT Sch 12
 m d Weh n h 97 l 79
 R p t f p g y f l w g n f th t r u
 L W H A N E S f M h n St t M Soc 97 xx 66
 Rep t d p g n y f r a m orrhoe nd c d by
 t g e n r r d i n o f th n C HOLTERMAN [116]
 Ze t l bl f Gyn k 97 l 99

- The calcium content of the serum during pregnancy labor and the puerperium A BOCK Klin Wchnschr 1927 vi 1090
- Blood calcium and phosphorus determinations in normal and pathological pregnancy IVANYI RODECOURT and LINZENMEIER Zentralbl f Gynaek 1926 I 731
- Determinations of the amino acid content of the blood by the method of Herzfeld during pregnancy and eclampsia H RUNGE and A JUHL Monatsschr f Geburt u Gynaek 1927 lxxv 463
- The anemia of pregnancy resembling pernicious anemia P ESCH Arch f Gynaek 1927 cxix 788
- The biology of the cerebrospinal fluid II Studies of the cerebrospinal fluid in non-syphilitic pregnant and parous women with regard to the Wassermann and Sachs Georgi tests E VOGT Arch f Gynaek 1927 cxxx 205
- The hormone of the anterior lobe of the hypophysis and the ovarian hormone in the urine of pregnant women S ASCHHEIM and B ZONDEK Klin Wchnschr 1927 vi 1322
- The thyroid gland and pregnancy J J MALONEY J Med Cincinnati 92, viii 347
- Experimental studies of the intermediate fat metabolism in pregnancy Bock Ztschr f Geburt u Gynaek 1927 xci 184
- Changes in the perineum due to pregnancy and their importance in the development of descent u H KUESTER Ztschr f mikroskop anat Forsch 19 7 x 65
- Otosclerosis and pregnancy C VON EICKEN Ztschr f Geburt u Gynaek 19 7 ci 192
- Pregnancy and mitral stenosis G ZINSTAG Monatsschr f Geburt u Gynaek 1927 lxxv 498
- Pylitis in pregnancy B C CORBUS and W C DANFORTH Am J Obst & Gynec 19 7 iv 544
- Certain toxic and mechanical causes of the disturbances of vision in pregnancy and labor S FRAYMANN Monatsschr f Geburt u Gynaek 1927 lxxvi 65
- Toxemia of pregnancy R A JOHNSTON and H W JOHNSON Texas State J M 1927 xxiii 304
- Toxemia of pregnancy and acetone bodies O BOEKL MANN and A BOCK Ztschr f Geburt u Gynaek 1927 xci 94
- The changes of pregnancy in the light of modern studies and their relation to pregnancy toxemia L SEITZ Monatsschr f Geburt u Gynaek 1927 lxxv 323
- Insulin treatment of the toxemia of pregnancy E VOGT Klin Wchnschr 19 7 vi 1330
- The scientific basis for glucose insulin treatment of the toxemia of pregnancy BOEKL MANN Ztschr f Geburt u Gynaek 19 7 xci 435
- Hyperemesis gravidarum R L GROGAN Texas State J M 1927 xviii 392
- Hyperemesis gravidarum J S BREWER South M & S 19 7 lxxxix 689
- The importance of psychotherapy in the treatment of intractable vomiting of pregnancy A P RAMOS and M L PÉREZ Semana med 1927 xxvii 477
- Eclampsia G C GILFILLAN Ohio State M J 1927 xviii 823
- Contribution on the question of apoplectic hemorrhage based on the case of a patient with eclampsia R JAFFE Zentralbl f Gynaek 1927 li 1387
- The treatment of eclampsia W A DWYER J Med Soc N Jersey 1927 xxiv 561
- The treatment of eclampsia E MARTIN Zentralbl f Gynaek 1927 li 1238
- The explanation of and treatment of eclampsia ROSENACKER Zentralbl f Gynaek 1927 li 1446
- Ileus and pregnancy VON MIKULICZ RADECKI Muenchen med Wchnschr 1926 lxxiii 1352
- New approaches to the question of sex determination O SCHOENER 1927 Wuerzburg Moennich
- The theory and practice of the prediction of sex by the interferometric method A STRECK Arch f Gynaek 1927 cxxx 26
- The diagnosis of uni-ovum or bi-ovum twins G A WAGNER Med Klin 19 7 xxiii 936
- A human ovum approximately nineteen days old J P GREENHILL Surg Gynec & Obst 1927 xlv 493
- The oxydase reaction in young human embryos E NICOLET Ztschr f mikro kop anat Forsch 1927 x 602
- Studies on the body length of the full term child F WEHFRITZ Arch f Gynaek 1927 cxxx 221
- Effects of the roentgen rays on the development of the embryo of the hen T YAMAMOTO Jap J Obst & Gynec 1927 2
- The influence of syphilis in the mother on the child A MUELLER Monatsschr f Geburt u Gynaek 1927 lxxvi 216
- The influence of thallium poisoning of the mother upon the offspring K EHRHARDT Klin Wchnschr 1927 vi 1374
- Free trans-plantation of the upper extremity through an innominate deformity L HIRSCH and H REINECK Frankfurt Ztschr f Path 1927 x v 48
- Necrosis of both forearms due to intra uterine pressure B LIEGENER Monatsschr f Geburt u Gynaek 19 7 lxxvi 278
- Ventral hernia in a 20-mm human embryo E HINTZSCHE Jahrb f Morphol u mikroskop Anat 1927 x 110
- Torsion of the umbilical cord F HEIMANN Monatsschr f Geburt u Gynaek 19 7 lxxv 55
- Compression of the umbilical cord by the child's hand H SAENGER Zentralbl f Gynaek 1927 li 578
- Hydrops congenitus universalis S OBERNDORFER Zentralbl f Gynaek 1927 li 1830
- The amniotic fluid and its quantitative variability F J TALLSIC Am J Obst & Gynec 1927 li 505 [116]
- The placental hormone (feminin) E GLIMM and I WADEHN Klin Wchnschr 1927 vi 999
- Premature separation of the placenta the case of bleeding through the uterus H KUESTER Zentralbl f Gynaek 1927 li 1369
- Premature separation of the placenta after meal's C U VON KLEIN Zentralbl f Gynaek 1927 li 1037
- The treatment of placenta praevia by prophylactic blood transfusion and caesarean section A H BILL Am J Obst & Gynec 1927 xiv 523
- Caesarean section in the treatment of placenta praevia O KORTHAUER Zentralbl f Gynaek 1927 li 1434
- Extra uterine pregnancy diagnosis and differential diagnosis R ZIMMERMANN 1927 Leipzig Thieme
- Extra uterine pregnancy ruptured by successful fissures with corresponding hemotocles A GUILLEMIN Bull Soc d'obst et de gynec de Par 1927 xvi 486 [116]
- Interstitial ectopic gestation operation recovery a case report R B WEILER and A B GJELLUM Am J Surg 1927 vi 379
- The roentgen diagnosis of tubal pregnancy P SCHNEIDER and F EISLER Zentralbl f Gynaek 1927 li 1360
- Is the re-infusion of blood from the abdominal cavity in ruptured tubal pregnancy absolutely necessary and of value? T BRUNNER Muenchen med Wchnschr 1927 lxxiv 29
- Ovarian pregnancy R ZIMMERMANN Zentralbl f Gynaek 1927 li 1569

Abdom l p g y tll l i J l l f Blat
 CAM M ts h f G buth u Gyn k 97 J
 26 Th chn l a p t i l th l g y f s d r y bdom
 nul p g o y L Z AER AN Zent lbl f Gyn k
 19 l 730
 I fl m m t d t n f t l ad adun gp g a
 E Hla R M t h f C buth u C y k 9
 l 43
 Tr m y l t m l tag p g n v a d l bor
 H H N B t M & S J 97 c 74
 Bl g d p th l g y f th f m l h d b o k f
 g y c l g y a d b t t r J HALBA J L S J R V J
 VIII Pt I Ruptu of th ut u R f Et d Tr um
 and p r a t o p h v s HAMME LAG Sued
 d th p g n l b n l th i r p num E KNAU R
 97 B l Urb & S h b g
 Tl t l y f ut p f r t n u t g f
 b t n f I ERZ W m d W hn l 9 l i
 8 D th b h r e m h g b o t o F B s Z nt lbl
 f Gyn k 9 l 9
 Symm t l g n f both f t a of febrile
 b t i a d th dm t f f g y g E Hla E
 Ze t albl f t y n k o l 178
 L poid t e t o f r a b t l a t n b t on
 th sympt m t o l g y f th f t p l t e P NEUDA
 Zt hr f G b th C y k 927 1395
 C n f t l pr gn y V BUE B l l Soc
 d ob t t d g n e de P 927 x t 53
 P e s y a d e c f th t i E H t c
 R e f de g y c t d b t 927 vi 43

Labor and Its Complications

Th i d t f labo at th nd p gn y by
 m f th adm t at f to l d n j i f
 l y p h y l e t a t k A D E R Z nt lbl f Gyn k
 97 l 40
 A t r i l d t f l b o at th end f p n c y
 A O T R E I L Z t l b l f Gyn k 9 l 654
 D r u f t m l t g d t h n g l a b p
 E G A F W l A l W hn ch 9 l 886
 R e t a l d l a t t o t m l t l b o r W N E T T E S I E I M
 M u h m d W hn l o l 894
 Th o l t f l t o B A S C I N E W l
 W hn h 9 l 4
 The c n d t f l b I F S C H E W med
 W h ch 97 l c 645
 The c n d t f l a b R h t l R W l med
 W ch sch 927 l c 646
 The c d t f n m a l l b J W B O U L A D T r
 S t i J M 97 v 397
 Sh t n g the p n d f n m l l b A O T R E I L
 W l m d W ch h 97 l c 66
 The i d c t f o d th m a g m n t f the t n l
 l b J C W A N D E R M d J A t h 97 S p p 8
 245
 The m g e m t f th s o d s t g f l b r G
 F O M M l R D e t h m d W h h 97 l 93
 D t m t f the p s o l l b by t n a l p J
 p t o n of th h d E S A C I N S Z nt lbl f Gyn k
 97 l 574
 The a l c f p l p u f the h n the duct of
 l b r R M U E L L E R H E I M Zent lbl f Gyn k 97
 l
 The m a g m n t f the th r d t g f l b M T
 V A v l g M M th 197 h 44
 The d l y f th f t e c m n g h e d O W v o
 w i t z M u n c h e n m d W h n s c h r 927 l c 1 3

Ute n e n t i t h r y sym j t m t i g v n d e r a
 t n M C D L G A R I S Med J Aust l 92 S p p 8
 5 S p p 9 57
 H e m r h g t h e d f p e g a n c y a n d d u n d
 f t l b H S c m D e i t h z Med A l 9
 1 83
 T i n l l g h a e of h a m t n a d r l a b o r
 n the b a f c y t o c p i f d i g A R E I S T Z nt lbl
 f Gyn k 97 l 35
 S h l l n g h f r n t l l l o o d o n t i l b d e t
 f u r p e t i m C H F U E M A N N Z t a l b l f Gyn k
 97 l 44
 Th i m p t f l b y l i g h t u p l t t y p h l
 F H E N N F M A N D t c h m d W h ch 97 l
 39
 A a o p h l g m u p a t i t th i s t t h y d m
 i o n d n l h C S C H I M M Z t r l b l Gyn k
 97 l 583
 M y o m f t h l o r g m n t d o t c t n o f B d l
 Z O N I G P g n t p t i V M A N U E L A V I E a n d A
 J l c i r u g l C h l 927 v 8
 W h t m t h f a t h p t f l b e a l l
 t t h g n a l p r c t i n L W E H E R F E I D u t s c h
 m d W h n l 97 l 92
 A m l a t o n of th p a f c h l l b t h J W A T I N S
 S o u t h M & S 97 l 68
 Th t h q f t h i d u t f t l h t l e e p t h
 o p l m e p h e d r i (M c k) n o p a t c p o d u
 F L E U Z T M u h m d W ch ch 97 l i 966
 E x p n w t h v n g t e l g i n b t e s
 W B M O U R J M d S N J s s 97 v 66
 Th h u f G t h u y a l b s 97 v 66
 M S N A I D R Zent lbl f Gyn k 97 l 8
 A t a (E) l o b t t n s L M A T I N M o n t h
 f G b r t h Gyn k 97 l 4
 P l a t p a m u l t p d y t i t t l l t r u
 t n t e t H P i t c r B l l o d b t t
 d g y n d l a o d 97 67
 D l y d l b n d a l f l t p a s n p l t
 p a t r f G L t Z t l b l f Gyn k 197 l
 587
 T n w d a n t h m h m o f c e r c l l a c e t
 d r a g l a b r 4 p i m r y p r t J B D e l a A m
 J O b t & () 97 499
 C l t d r p i n u d e l r W R o s
 S T E N M t c h r f G b t h u G y a c k 9 l c
 6
 I n m y e p l t h p i u m W W W E L L S S o
 M J 97 v 83
 S p o t r p t f t h t b l e r d
 J b J H E N R Y E d b g h M J 97 v E u
 b u g h O b t S c 6
 l i r u p t f t h t r u s l a b o A G O O D o
 B n t M J 97 638
 Th t l g y o f p t m t m l b o H H E L L D A L L
 Z t h r f G t h u Gyn k 97 3
 Th f l d f p a d i t t m t D M I L L E R
 B t M J 97 685
 S p t f o p d l v n e l l g p e u
 x t s M S A L M O D L n t 9 c l u
 8
 Th m m t f o c p u t p t n p t n R v
 H A M E v t h t M d 97 5
 O b t t l p t p o c d r J J G I L L I l l
 M J 97 l 35
 C a e a t b y the m t h d f P o t G A
 W c e Z t l b l f Gyn k 9 l b
 Th b u f a t f l J t r r B n t M
 J 97 451 M d J A t l l 97 S p p 6 p 84
 (117)

- A case of cesarean section for a foetal malacia I I G KRISHNA Iyer Indian M Gaz 1927 lxii 568
- Cesarean section *in motu* with a living child S JOSEPH Deutsche med Wchnschr 19 7 lii 1735
- Options for increasing the diameter of the pelvis C HOPPE Zentralbl f Gynaek 9 13 9
- The treatment of narrow pelvis II KUPFERBERG Monatschr f Geburtsh u Gynaek 19 7 lxxvi 176
- The operation of pubiotomy A B LINSLEY Med J Australia 927 Supp 8 p 249
- Retention of the membranes II NOELLE Zentralbl f Gynaek 9 7 li 1445
- Manual removal of the placenta H HEDLER and B STEINHARDT Wuerzb Abhandl d Cc amgeb d Med 19 7 li 7
- The management of retention of the placenta and parts of the placenta after labor at term H NAUJOKS Deutsche m d Wchnschr 927 liii 925
- The sitting posture after labor A HARTMANN Zentralbl f Gynaek 1927 li 586
- Geloida antineuralgia for the treatment of severe after pains R MEY Deutsche med Wchnschr 927 liii 9
- Treatment of postpartum hemorrhage J SOPHAN Lancet 1927 ccviii 753
- The vasoconstricting action of certain ecbolics W ZORN Zentralbl f Gynaek 19 7 li 946
- Convulsions caused by pituitary extract after labor R D LAWRENCE and M F SHACKLE Brit M J 1927 ii 786
- Inversion of the uterus J G HAYES Brit M J 19 7 ii 786
- Inversion of the uterus C C ELLIOTT Brit M J 1927 vi 595

Puerperium and Its Complications

- Postpartum case of the parturient woman J F BUNALLY Teas State J M 1927 xiii 401
- Biological and pathology of the female a handbook of gynecology and obstetrics J HALBAN and L SEITZ Vol VIII Pt I Pathology and treatment of the puerperium H H SCHMID Anatomy and physiology of the puerperium A LABIARDT Pathology of the puerperium W SIGWART 9 7 Brlin Urban & Schwarzenberg
- The effect of anesthesia on the activity of the puerperal uterus II FRANKEN and II SCHLOSSMANN Arch f Gynaek 9 7 cxxv 215
- An unusual and dia notistically interesting case of death shortly after labor A HOCHENBICHLER Wien med Wchnschr 19 7 l x vi 870
- Prolaps during the puerperium M SINNECKER Zentralbl f Gynaek 1927 li 2024
- Does hemorrhage during labor have any influence upon the occurrence and course of puerperal infection? K VOLKMAN Deutsche med Wchnschr 1927 liii 363
- The treatment of puerperal sepsis in general practice O HERSCHMAN Therap d Gegen 1927 lxxvi 308
- The alcohol treatment of puerperal sepsis II THOMSON Zentralbl f Gynaek 927 li 1795
- The therapeutic use of glucose in puerperal fever and the results of this treatment E GROSS Therap d Gegenw 1926 li vi 481
- Litature of the vena cava in puerperal pyæmia L KOCH Zentralbl f Gynaek 927 li 1713

Newborn

- Studies in the biological inheritance of twinning The biological bases Studies of 102 uni-ovular twins 45 br

- of twins of the same sex and 2 sets of triplet O von VLESCHNER W M KINKLIN and V ZIEPPELEN Ergeb d inn Med u Kinderh 19 7 lxxvi 35
- Infections of the causes of death in newborn infants II HOOK Beitr z path Anat u z allg Path 1927 l xvi 456
- Intracranial lesion or asphyxia neonatorum? H HEIMLER Ztschr f Geburt u Gynaek 1927 ci 235
- A rare type of birth injury and its sequelæ E BETT MANN Deutsche med Wchnschr 19 7 liii 364
- A case of double monster (parasitic fetus) removal of the parasitic recovery of the autosit D D KAPUR Indian M Gaz 1927 liii 566
- The so called intra uterine acquired gonorrhoeal ophthalmia K O LOHL Zentralbl f Gynaek 19 7 li 1838
- Hæmorrhage of the newly born S M WYLER Nebraska State M J 19 7 vii 382
- The treatment of melina neonatorum v r R HOL LAENDER PUPPEL Wien Klin Wchnschr 1927 xl 580
- Severe neonatal hæmorrhage arrested by calomel R I HUTCHINSON Brit M J 19 7 i 638
- Hepatic hypertrophy in the newborn R F MATTERS Med J Australia 9 7 ii 581
- Homicidal strangulation of a fetus by the umbilical cord S SMITH Lancet 927 ccviii 755

Miscellaneous

- The two hundredth anniversary of the Lying In Hospital of the Charité (Berlin) and a contribution on the history of obstetrics in Berlin WILLE Ztschr f Geburtsh u Gynaek 927 ci 408
- Birth control as it confronts the medical profession in the United States S A KNOPP Clin Med & Surg 1927 iv 237
- Conception and measurements for it H SELLEHLIM Jahresh f aertel Fortbild 19 7 iii 1
- Guides for the acceptance and instruction of midwives H WALTHER Monatsschr f Geburtsh u Gynaek 9 7 lxxvi 228
- Obstetrical morbidity in rural practice analysis of 717 pre-natal H E HARVEY and D O HUGH Nebraska State M J 1927 vii 361
- Reducing obstetrical mortality F H WRIGHT J Med Ass Georgia 1927 vi 333
- What are the comparative values of the external, the rectal and the internal vaginal examination in obstetrics for the general practitioner? W FUERST Deutsche med Wchnschr 19 7 liii 9
- Blood tests as proof in the establishment of paternity K NUCK Ztschr f aertel Fortbild 1927 cxxv 404
- The significance of the Wassermann reaction in obstetrics H BAUMM Arch f Gynaek 1927 cxxv 192
- A study of the effects of blood transfusion in obstetrical and gynecological conditions J O POLAK and A D KIRK Am J Obst & Gynec 1927 xiv 537
- The study of stillbirths occurring in 4000 consecutive deliveries E C LYON JR Am J Obst & Gynec 1927 vi 548
- Experiences with hypophen M von KRIES Muenchen med Wchnschr 1927 liiii 581
- Clinical experiences with thyrophysin E GRAFF Zentralbl f Gynaek 19 7 li 1373
- The substances in ergot acting upon the uterus II Histamin A W FORST and H WESSE Arch f exp Path u Pharmacol 1926 ccviii 232
- The action and dose of hypophyseal preparations in obstetrics II GROSSMANN Therap d Gegenw 1927 lx iii 159

- Leukoplakia of the bladder E L YOUNG JR J Urol 1927 xviii 407
- Malacoplakia vesicae—an investigation of certain mycotic infections of the genito-urinary tract W E C DICKSON A C L GRAY and F KIDD Urol & Cutan Rev 19 7 xxvi 6 1
- Inflammatory lesions of the bladder simulating neoplasm a report of three cases J J JOELSON and W E LOWER Surg Gynec & Obst 1927 xlv 417 [125]
- The changes in the bladder in cases of cancer of the uterus treated by irradiation F HEIMANN Zentralbl f Gynaek 19 7 li 1899 [126]
- Ulceration of the bladder as a late effect of radium applications to the uterus A L DEAN JR J Am M Ass 1927 lxxvii 11 1 [126]
- Simple ulcer of the bladder P PASCHIS Ztschr f urol Chir 1927 xvi 257
- The conservative treatment of small bladder fistulae by electrocoagulation B ORROW Zentralbl f Gynaek 19 7 li 347
- A rubber bag inflated in the bladder as an aid to bladder surgery C S CAPELL J Missouri State M Ass 19 7 xvi 463
- Anne suprapubic cup for permanent bladder drainage M MITSCHUR J Urol 1927 xviii 417
- Rupture of urethra a new method of treatment H BANK Brit J Surg 19 7 xv 62
- Plastic operation for injuries of the urethra C STAVICA Zentralbl f Gynaek 19 7 li 1193
- Urethral and penilethral calculi G P H HUBBY Brit J Surg 19 7 v 397
- A new method of treating hypospadias R FALCONE Arch Ital di chir 1927 xviii 497 [126]

Genital Organs

- Clinical and experimental data on prostatic infection W H VON LACUM J Urol 1927 xviii 293
- The diagnosis and treatment of chronic abscess of the prostate G PRATERIUS Zentralbl f Chir 1927 liv 958
- Enlargement of the prostate gland with characteristics resembling Hodgkin disease O S LOWERY and I W HARRAH Ann Surg 19 7 Lxvi 556
- Vital factors in the management of prostatic obstruction B A THOMAS Ann Surg 1927 lxxvii 563
- The conservative treatment of prostatic hypertrophy A ROSENBERG Ztschr f urol Chir 1927 xviii 219
- When should the prostate be operated upon and what rôle does the determination of renal function play in the indication for operation H WILDBOLZ Schweiz med Wchnsch 19 7 497
- Prostatectomy as treatment of urinary retention due to a benign hyperplasia A G CASARIEGO J Urol 1927 xviii 401
- The technique and statistics of suprapubic prostatectomy A BRENNER Ztschr f urol Chir 1927 xviii 120
- Suprapubic prostatectomy complete exposure through a 1 to 1 incision operative results and technique S H HARRIS Med J Australia 1927 Supp 8 p 247
- A modified suprapubic prostatectomy ROEDER Ann Surg 1927 lxxvi 66
- Suprapubic prostatectomy for benign obstructions an analysis of fifty consecutive cases W T BRIGGS J Urol 19 7 xii 38
- The actual achievement of median perineal prostatectomy an analysis of twenty five consecutive cases P SAMS Yok State J M 1927 xxvii 97
- Complete closure of the bladder following prostatectomy W E LOWER J Am M Ass 19 7 lxxviii 749 [127]

- Pre operative and postoperative care of prostates I J KATLE New Orleans M & S J 1927 lxxx 246
- Gynecomastia following prostatectomy R OPPENHEIMER Deutsche med Wchnsch 1927 liii 883
- Gonococcus epididymitis M F CAMPBELL Ann Surg 1927 lxxvii 577 [127]
- The treatment of acute gonorrhoeal epididymitis with special attention to the prevention of azoospermia H K WADE J Urol 1927 xviii 427
- The surgical treatment of gonorrhoeal funiculitis G M GURWITSCH Zentralbl f Chir 19 7 liv 1225
- Myoma of the spermatic cord W E LEIGHTON J Missouri State M Ass 1927 xvi 443
- Infection of the testicle S LUBASCH J Urol 19 7 xviii 427
- An operation for sterility in the male H C POLNICK Surg Gynec & Obst 19 7 xlv 557
- Sterilization procedure and its success in California institutions C F DIGHT J Lancet 19 7 li 462
- Malignant tumors of the testicle with special reference to classification J H MORRIS Arch Surg 1927 v 539 [128]
- Excision of metastases in the supraclavicular glands after castration for malignancy air embolism with a loud audible intracardial splashing sound P BULL Deutsche Ztschr f Chir 1927 cxxviii 328
- Multiple scrotal fistulae following rupture of the bladder with stricture of the urethra operation and restoration of function L H WILLIAMS U S Naval M Bull 1927 xvi 897
- True hermaphroditism in man report of a case with a critical review of the literature B KWARTIN and J A HAYES J Urol 1927 xviii 363
- The treatment of tube culosis of the male genital tract F KIDD Practitioner 1927 cxix 211

Miscellaneous

- Urology for the general practitioner A C PEDERSEN Med Times 1927 liv 7
- Diuretics their utility and limitations H A CHURCHILL Boston M & S J 1927 cxxvii 614
- The theory of the action of urotropin in urinary retention T BRUNNER Zentralbl f Gynaek 1927 li 96
- What can be learned from urinary examinations W I ONLER Boston M & S J 1927 cxxvii 593
- Urinary discoloration resulting from chewing a blue blotter F A LAUGHT J Am M Ass 19 7 lxxvii 1150
- Bleeding from the genito-urinary tract A M BEN NARDI Clin Med & Surg 1927 cxxvii 768
- Essential hæmaturia N TREGGAR Brit M J 1927 ii 593
- The recognition of fresh inflammation from urinary sediments E PREISSECKER Wien klin Wchnsch 19 7 xl 87
- Handbook of urology Vol IV Special urology Pt 2 Tuberculo Actinomycosis Syphilis Stone Hydro-nephrosis Mobile kidney Renal tumors Disturbances of metabolism Tropical diseases A VON LICHTENBERG F VOELKER and H WILDBOLZ 1927 Berlin Springer
- Obstruction of the urinary tract I H CUTLER Internat J Med & Surg 19 7 xl 328 [128]
- Polymyelitis involving the urinary tract H A KREUTZMANN California & West Med 1927 cxxvii 593 [128]
- Veneral disease control T PARRAN JR Illinois M J 1927 li 285
- Experiences in the management of gonorrhoea S J STANOE Urol & Cutan Rev 1927 xxxi 654

- ual case of congenital total absence of both up
it es perophocomelia and syndactylia N B
VITSCHE Ztschr f orthop Chir 1927 xlviii
- tumatic origin of Dupuytren's contracture
L Zentralbl f Chir 1927, h 1246
- early reconstruction work on hand and forearm
and late results A STENDLER Surg
Obst 19 7 lv 476
- of congenital ulno palmar club hand with sub
of the fin ers A GRUCA Rev d orthop 1927
[130]
- injuries to the fingers at hand ball T MANDL
l Wehnschr 1927 lxxvii 963
- splints and their use F SCHNEK Muenchen
nschr 19 lxxv 977
- tumors of the extensor surface of the fin ers
Deutsche med Wehnschr 9 lv 619
- of imple cleft sternum W G LOVE Brit M
1 68
- eous rupture of the abdominal muscles H
Wien klin Wehnschr 19 xl 757
- ital deformity or old injury to the cervical pine
et of paraplegia W J WIDIE Proc Roy Soc
id 1927 xx 1838
- raturs for the treatment of non fixed deformities
ne F VISCHE Muenchen med Wehnschr
v 1098
- entation of scoliosis by care and training IV
ment of scoliosis G LOE Muenchen med
v 19 lxxiv 933
- atment of scoliosis II The danger of scoliosis
Muenchen med Wehnschr 19 lxxiv 845
- corrective apparatus (corset) designed e specially
ics who are working SCHLEE Muenchen med
v 192 lxxiv 846
- atment of cu ature of the pine n the Orthopedic
y Clinic of the Citizens Hospital Colo ne
Zent abli f Chir 92, liv 1 78
- talities of the lower part of the back A
J Am M Ass 192 lxxxix 1128
- lorsal kyphosis in adolescents M DONATI Arch
ir 9 xliii 560 [131]
- tribution to the study of low back pain R R
rg Gynec & Obst 10 vls 483
- thopedic aspect of low back pain in connection
disorders P H KRETSCHER Surg Gynec &
v 1 482
- utions on the biology of bone and on the o tho
gical treatment of tuberculous spondylitis M
Ztschr f orthop Chir 19 7 xlviii Supp
- of late al spina bifida M HIEZWEICK KELL
v Soc Med Lond 19 7 xx 1823
- le bullets in the spinal canal I P BELL J
oint Sug 9 v 639
- seal absorption at the head of the femur (os
ntis d formans juvenilis) W HOFFMEISTER
Ztsch f Chir 192 cxiiciv 440
- top thog nes s of Perthes disease on the basis
ly case K ROCKEMER Frankfurt Ztschr f
2 xxx 1
- iology of coxa vara and Pe the s disease A
Ztsch f orthop Chir 19 xlviii 29
- congenital coxa val a luvans as the cause of a
ate dia e of the hip W MUELLER Beitr z
r 19 cxxxix 464
- al a M HACKENBROCH Ergebn d Chir u
192 xx 1
- and report on a hitherto unde-scribed dystrophy
of luetic origin affecting particularly the joint
- of the lower extremity C F EKENBARY J Bone & Joint
Surg 192 iv 80
- Six gan la of the lateral and three ganglia of the medial
meniscus of the knee joint K MAJER Zentralbl f Chir
192 h 1358
- Strauns or twists of the knee F B FOWLER Illinois
M J 19 7 lv 330
- Internal derangement of the knee joint J O WALLACE
and II H PERMAR J Bone & Joint Surg 19 xv
67 [131]
- A circumscribed ca ernous haemangioma of the cap ule
of the knee joint II EGGERS Zentralbl f Chir 192,
liv 409
- Taralytic knee fusions O L MILLER South M J
92 xx 8
- Intermittent hydrops of the knee KAUSCH Zentralbl
f Chir 927 liv 198
- Tuberculosis of the knee joint in the adult M S
HENDERSON and II J FORTIN J Bone & Joint Surg
192 iv 60
- A rare tumor of the semilunar cartilage B KOTT
Deutsche Ztschr f Chir 192 cxii 406
- The development of deformities of the legs (genu
algum and varum) G BRANDT Arch f o thop u
Unfall Chir 9 7 xxv 48
- A rare localization for stenosing tenosynovitis (in the
tendon sheath of the peroneal tendons) M HACKEN
BROCH Muenchen med Wehnschr 192 lxxiv 93
- Schlatter's disease H J VOY BRANDIS Ztschr f
orthop Chir 927 xlviii 219
- The etiology of so called Schlatter's disease T ASADA
and S Kato Ztschr f orthop Chir 92, xlviii 9
- A noteworthy type of deformity of the ankle with
compensatory mo ements in certain inte tarsal joints
J SCHUELLER Arch f Orthop u Unfall Chir 1927 xxv
193
- Kinetic and dynamic factors in the de elopment of
incomplete flat foot and the results of their correction
R SCHERR Ztschr f orthop Chir 9 xliii 161
- Club foot C MAU Ergebn d Chir u Orthop
1927 xv 361
- Studies on club foot the morphology and development
of the deformity L KREUZ Arch f Orthop u Unfall
Chir 19 7 xv 1
- A statistical study on congenital club foot with regard to
its occurrence in a Swedish orthopedic clinic II NILSSON
Ztsch f orthop Chir 9 xliii 8
- The dangers of forcible correction of club foot II
BUERKE DE LA CAMP Muenchen med Wehnschr 19
lxxv 94
- The relation of tuberculosis to Koehler's disease H II
GREYWOOD Brit J Surg 9 7 xv 4
- Productive ossifying pe stitosis of the tuber calcanei
W R BRAUFA Zentralbl f Chir 1927 h 150
- Ruptures of the tendon of Achilles BRISSET Bull et
m Soc nat de chir 192 lin 95 [132]
- ### Surgery of the Bones Joints Muscles Tendons Etc
- A pneumatic hammer for bone surgery H C PITKIN
J Am M Ass 192 lxxix 1151
- R par of defects of the long bones by free autoplasic
bone tran plants experimental and clinical studies ith
particular reference to pathological conditi n of the
trans plant H KOCH Beitr z klin Chir 192 cxxxix
63
- The treatment of cute osteomyelitis by dra nag and
rest H W ORR J Bone & Joint Surg 19 xv
33

- The use of Liston's long splint in the treatment of fracture of the femur R MARTIN Lancet 19 7 ccviii 8
 Congenital dislocation of the knee joint case report A S GRISWOLD J Bone & Joint Surg 1927 ix 628
 Traumatic luxations of the knee O ANGELELLI Chir d organi di movimento 1927 xi 435 [135]

- Incomplete lateral dislocation of the knee with wedging of the torn soft parts into the joint cavity K WLRWATH Zentralbl f Chir 19 7 liv 850
 Closed intra articular fractures and traumatic dislocations of the knee R CRILLOVICH Arch f Orthop u Unfall Chir 1927 xxv 94
 Tarsal metatarsal dislocation P B ACKER J Am M Ass 1927 lxxviii 1150

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

Blood Vessels

- The innervation of the blood vessels F BRUENING Deut che med Wchnschr 1927 li 962
 Variations in the origin and course of certain branches of the subclavian artery K YAZUTA Anat Anz 1927 Lii 139
 The clinical importance of anomalies of the veins of the neck E SCHLANDER Monatsschr f Ohren 1927 lxi 430
 Intracarotid injections and substances opaque to the roentgen ray which are suitable for injection E MONIZ Presse méd Par 1927 xx 969 [136]
 Circulatory weakness as a late consequence of aneurisms of the peripheral arteries A ISRAEL Zentralbl f Herz krankh 1927 x iii 4
 The treatment of aneurism of the common carotid artery with not s of a case J E LITVERSON Glasgow M J 1927 cviii 207
 Three remarkable cases of femoral aneurism and their treatment B KOEHLER Deutsche Ztschr f Chir 19 7 ccviii 56
 Aneurism of the femoral artery endo aneurismorrhaphy J F JENNINGS Ann Surg 1927 lxxx 1 615
 Intermittent claudication and its treatment by diathermy A W GILL and I N MOSS Lancet 1927 ccviii 912
 Stasis of the blood stream in inflamed vessels its cause and the method of preventing it J H EGENBOGEN Frankfu t Ztschr f Path 1927 xxxv
 Endarteritis acute form electric shock I F DICKINS U S Naval M Bull 1927 x v 881
 Thrombo angustis obliterans R O GIRDWOOD J Path & Bact 10f 1927 xx 643
 Thrombo angustis obliterans J F JENNINGS Ann Surg 1927 lx vi 60
 Primary involvement of the upper extremities in thrombo angustis obliterans (Burger's disease) G R CONSTAT Am J M Sc 1927 clxxv 530 [136]
 Atherosclerosis and the treatment L C MANSUR J Missouri State M Ass 9 xxiv 469
 The treatment of varices by the method of Sicaud and Linsler A GRUCY Pol ka ga lek 1926 v 982
 The injection treatment of varicose veins by the use of clerosing solutions II O McHEETERS Sug & Gynec & Obst 19 27 xlv 54 [136]
 Hemangiectatic hypertrophy of the arm a case of gen plebectasis F SUMA and D W MCCREDIE Mel J Australia 9 7 ii 58
 Radium treatment in angioma G A ROBINSON Arch Pediat 1927 xlv 660
 Studies on the origin of the hepatic artery F HORII Arch f Japan Chir 1927 i 92
 The results of sympathectomy with ligation of the femoral vein in the treatment of betegangene cords of the legs P BROOKS Brit J Surg 19 7 x 286
 Physiological and histological study of the circulatory conditions in the left lower extremity in a case in which the

- femoral artery was ligated in 1860 A DUMAS and P RAVAUULT Lyon chir 19 7 xxiv 387 [137]
 The diagnosis and treatment of arterial vascular disease of the extremities G F BROWN and M S HENDERSON J Bone & Joint Surg 1927 ix 63
 The discordance between local hyperthermia following sympathetic neurotomy and the findings of a study of the arterial circulation in these cases R LERICHE and R FONTAINE Presse med Par 19 7 xxv 971 [137]

Blood Transfusion

- The rôle of the reticulo endothelial system in immunity IV The action of diphtheria toxin in splenectomized and blocked mice C W JUNGEBLUT J Exper Med 19 7 xlii 609
 A study of the comparative chemistry of the corpuscles and serum of normal blood A T BRICE Jr J South Carolina M Ass 92, xxiii 487
 The iodine content of the blood and its changes during menstruation and pregnancy F E MAURER Arch f Gynaek 1927 cxxx 70
 An unusual case of blood calcium deficiency F P SMART Virginia M Month 1927 liv 44
 The changes in the acid base equilibrium after biliary fistula and their importance in the development of the so called porotic malacia C DUETTMMANN Beitr z klin Chir 19 7 ccviii 70
 Infectious anemia of rats caused by splenectomy etiology pathology and chemotherapy M MAYER W BORCHART and W KIKUTH Beihfte z Arch f Schiffs u Tropen Hyg 1927 xxvi
 Some observations on the blood sedimentation rate J W DAVIS South M & S 19 7 lxx 703
 Photographic demonstration of the rate of sedimentation of the red blood cell LITTEN Ztschr f Geburtsh u Gynaek 1927 xci 431
 Pathological changes in the leucocytes in surgical infections especially general infections II von SEEMEN Deutsche Ztschr f Chir 9 ccviii 633
 The simulation of surgical diseases by leukaemia H von SEEMEN Muenchen med Wchnschr 19 7 lxxv 878
 Blood transfusion W SPITZMUELLER Wien med Wchnschr 19 7 lxx 1 3 7 350 358
 The history of blood transfusion A W HOLMES A COURT M d J Aust alia 1927 ii 528
 Blood transfusion and its present surgical value II S CLARK South M & S 19 7 lxxviii 697
 The determination of compatibility in bloods S C DYKE Lancet 9 7 ccviii 910 [137]
 The amount of blood for transfusion a simple method to determine the dose for adults and children II W JONES Am J M Sc 92 clxxv 466
 Apparatus for direct blood transfusion developed by Dr F W TILLEY M GREENE Am J Surg 1927 ii 395
 Auto transfusion of blood II H NEWMAN South M & S 19 7 lxxviii 61

The treatment of tetanus M TSCHUBB Deut che Ztschr f Chir 19 cci 332

Trypflavine in gonococcal conditions C M MATTA and I CATALDI Semana med 19 , xxiv 133

The treatment of erysipelas with manganese P HERSZKY Therap d Gegenw 1927 lxxi 52

The physical and chemical influence of elmocid on purulent processes G SCHIFFOREIT Deutsche Ztschr f Chir 1927 ccii cciv 63

Experiences with Kupfer Dermatin in the treatment of poorly healing conditions of the skin O EILERS Deutsche med Wchnschr 19 lxxi 918

New therapeutic possibilities with iodipin and iodipin psicin E BETTMANN Deutsche med Wchnschr 1927 lxxi 831

The treatment of fresh wounds with perflorin M LIBOWITZ Med Klin 1927 xxiii 800

New studies on the Albrecht Ulzer halogen solution L KISAK Wien klin Wchnschr 1927 xl 78

The results of systematic irrigation of operative wounds with the halogen solution of Albrecht and Ulzer DOMANIG Zentrabl f Chir 19 lvi 162

The effect of the galvanic current on hyperaemia and healing T DIEMER Deutsche Ztschr f Chir 1927 cc i cc 575

Experimental studies of irradiation treatment for inflammation I MITTERMAIER Deutsche Ztschr f Chir 1927 ccii cci 557

Anæsthesia

New theories on anæsthesia H SCHLOS MANN Deutsche med Wchnschr 1927 lxxi 907

The dermal control of anæsthetics S JALKIN Anes and Anal 1927 vi 15

Anæsthetic toxicity V E HENDERSON Canadian M Ass J 1927 xii 138

Practical anæsthetics in children J BIRT Lancet 1927 ccviii 43

The pharmacological action and administration of nebuliz anæsthetic agents J G E HINKLE Anes and Anal 1927 vi 238

Is ether the safe anæsthetic which it is? A retrospective consideration L L SOLOMON J Med Cincinnati 1927 lxxi 390

The adaptation of the heart to toxic concentrations of ether MCK CATHILL Anes and Anal 1927 vi 23

Percentages and true flow of gases for gas oxygen anæsthesia R V FORGGER Anes and Anal 1927 vi 23

A report on the nitrous oxide oxygen anæsthesia as it is used in the young of age D A WOOD Anes and Anal 1927 vi 238

Clinical experiences with somnifene anæsthesia H VENTFELD Zentrabl f Chir 1927 lvi 67

The technique of inducing twilight sleep with scopolamine and morphine (Meck) for surgical procedures I LUBITZ Muenchen med Wchnschr 1927 lxxi 966

Dichlorenol as a substitute for chloroform I ALBRECHT Arch f klin Chir 1927 cxlvi 273

Removal of the exhaled anæsthetic gases I HOELSCHER Zentrabl f Chir 1927 lvi 1558

Carbon dioxide inhalations in surgery A DZIALOSZYNSKI Deutsche med Wchnschr 1927 lxxi 716

Essential of successful local anæsthesia B H MINCHEW South M J 1927 cx 774

Local anæsthesia in eye ear nose and throat work F L YOUNG U S Naval M Bull 1927 cxv 89

Indications for intratracheal anæsthesia C C STEWART Anes and Anal 1927 vi 248

Canadian M Ass J 1927 cxvii 1182

The diagnostic value of paravertebral anæsthesia II KENZ Zentrabl f Chir 1927 lvi 1605

Persistent nerve disturbances resulting from spinal anæsthesia C FLOUTRE Bull et mém Soc nat de chir 1927 lxxi 456

Persistent myiasis following lumbar anæsthesia induced with novocain adrenalin solution M FRANK Deutsche Ztschr f Chir 1927 ccii 262

Sacral anæsthesia S R BENEDICT Internat J Med & Surg 1927 xl 39

Experimental and clinical material for the study of rectal anæsthesia induced with ethyl chloride O G KALINA Monatschr f Ohren 1927 lvi 30

One thousand cases of the rectal administration of novocain in preparation for anæsthesia V I MERTENS Arch f klin Chir 1927 cxli 6

Rectal anæsthesia induced with novocain (F 07) Pharmacological section F EICHHOLZ Deutsche med Wchnschr 1927 lxxi 710

The theory and practice of the induction of rectal anæsthesia with novocain M KIRSCHNER Muenchen med Wchnschr 1927 lxxiv 917

Rectal anæsthesia induced with novocain E 107 M BORCHARDT Deutsche med Wchnschr 1927 lxxi 909

Rectal anæsthesia induced with novocain (F 07) I UNGER and H HEUSS Med Klin 1927 cxviii 634

Anæsthesia induced with novocain W LOBENHOFFER Muenchen med Wchnschr 1927 lxxi 849

Clinical experiences with novocain (F 107) O BLZENIGER Deutsche med Wchnschr 1927 lxxi 7

The pharmacological action of novocain H KILLIAN Zentrabl f Chir 1927 lxxi 907

Comparison of ether anæsthesia and rectal anæsthesia induced with novocain (ave tin) personal experience M LEVY DORN Med Klin 1927 cxviii 87

Prevention of the after effects of anæsthesia F HOELSCHER Zentrabl f Chir 1927 lvi 1559

Death after anæsthesia status lymphaticus J ACOMBI Brit M J 1927 vi 734

Surgical Instruments and Apparatus

Catgut and iodized catgut STORR and VIEL Zentrabl f Chir 1927 lvi 9

Maintenance of sterility of catgut during operation II BOTT Zentrabl f Chir 1927 lvi 199

Some minor modifications of Harvey's silver clip outfit K G MCKENZIE Surg Gynec & Obst 1927 xlv 549

- A patient with ergot gangrene P CATTIER Ztschr f Geburtsh u Gynaek 192 xci 1 5
- The administration of too much inulin in surgical cases of diabetes M ROSENBERG Zentralbl f Chir 192 li 1300
- Suitable and unsuitable types of medical therapy for diabetes in the presence of surgical complications H BAUR Zentralbl f Chir 192 li 1315
- Further experiences in the surgical treatment of diabetes J A GOLJANITZKI and N N SHIRKINA Zt chr f klin Med 19 cv 661
- Multiple new growths J A MURRAY Lancet 9 ccxi 1 500
- Subungual melanoma Hutchinson's melanotic whitlow N A WOMACK Arch Surg 19 7 x 66 [140]
- The primary malignant subungual melanoblastoma K SPECHT Deutsch Ztschr f Chir 92 ccii 390
- Some notes on cancer W MEYER Med J & Rec 9 cv 406
- Cancer and the medical profession J M BIRNIE Boston M & S J 192 ccxvii 552
- Cancer and the public R W KELSO Boston M & S J 19 ccxvii 553
- National aspects of the cancer problem G A SOPER Boston M & S J 92 ccxvii 54
- Cancer and public dependents J H NICHOLS Boston M & S J 192 ccxvii 55
- The present status of studies on the etiology of cancer C LEVIN I gebn d Hyg Bakteriell Immunitaets forsch 192 vii 513
- New theories as to the cause of cancer W KOOSE Frgen d Ch u O thop 9 7 xx 547
- Cancer experimental and clinical G DOEDERLEIN Ztschr f Geburtsh u Gynaek 19 xci 4 9
- Tissue changes following the application of tar A KORENVI Arch f path Anat 9 ccxii 383
- Carcinoma with epithelium not found in the region C PLENGE Arch f path Anat 19 ccxiv 3
- Contribution on experimental transplantation of tumors in animal studies with tumor fillets and dried tumor tissue F HAUFEN Klin Wchn chr 19 1 2
- The biometrics of animal reproduction in relation to tumors and cancers Sir J BLAND SUTTON Lancet 19 ccxii 47
- Apparent infectivity of cancer J MacLEOD Brit M J 92 vi 294
- Some observations on the nature of cancer Preliminary report Studies in the incidence and inheritability of pontaneous tumors in mice M SLYE J Cancer Research 19 vi 135 [141]
- The histology and etiology of experimental transmissible mouse cancer J KOENIG Zentralbl f Bakt Fara it Infectiösk nkh 19 6 xc 1 151
- Cancer hair S SISON Zentralbl f Gynaek 192 li 496
- Cancer death rates which allow for age and residence G A SOPER J Cancer Research 192 vi 58
- Cancer clinics W T HOPKINS Boston M & S J 92 ccxvii 556
- Animal experiments and the early diagnosis of cancer in man R MEYER Zt chr f Geburtsh u Gynaek 19 xci 464
- The changes in the histological structure of a cancer following the loss of its sensory nerve supply and the influence of this neurotomy on the course of various pathological processes N S OKOLOV Deutsch Ztschr f Chir 19 ccii 0 [142]
- The basal metabolism in patients with carcinoma A HENDL and R TRAUBNER Mitt a d Grenzgeb d Med u Chir 192 xl 416
- The clinical value of the Davis cancer reaction W F JOEKWER and W J MATSCHAN Arch f klin Chir 19 7 cxli 593
- Cancer its curability and prevention O TEUTSCHLAENDER 1927 Heidelberg Grossberger
- The biological treatment of carcinoma A THEILHABER Muenchen med Wchn chr 19 lxxi 108
- The treatment of malignant tumors with tumorizin S OKOVIOTI Tr Japan path Soc Tokyo 1923 xv 208
- Methods and indications for the treatment of skin cancer K WERNER Urol & Cutan Rev 19 7 xxxi 634
- The preparation of colloidal lead for therapeutic use H Q WOODARD Ann Surg 1927 lxxxvi 60
- Combined radiation and lead therapy I C WOOD J Am M Ass 1927 lxxxiv 1216 [142]
- Colloidal lead and irradiation in cancer therapy H J ULLMANN J Am M Ass 19 lxxxiv 1218 [142]
- Epithelioid carcinoma of the skin M M POLAND South M J 192 x 94
- Melanosarcoma G GATTER Zentralbl f Gynaek 1927 li 13 8
- Excision of the Rous chicken sarcoma K STEINBAUM and S R BENEDICT J Cancer Research 1927 vi 164
- ### General Bacterial Protozoan and Parasitic Infections
- Postantrina sepsis or bacteremia L DRENER Zentralbl f Chir 1927 li 1363
- Variations in the Scourge type of bacillus coli from the standpoint of bacteriophage action J B NELSON J Expt Med 19 7 xl 1 549
- Bovine tuberculoz and its relation to man A S ANDERSON Minnesota Med 19 605
- The relation of monocytes and clasmatocytes to early infection in rabbits with bovine tubercle bacilli F R SABIN and C A DOAN J Expt Med 9 xl 1 647
- A traumatic hematoma infected with bacillus welchii J C HALL J Am M Ass 92 lxxxix 1241
- The soluble specific substance of Friedlaender's bacillus III On the isolation and properties of the specific carbohydrate from Types A and C Friedlaender bacillus W F GOEBEL and O T WERY J Expt Med 1927 xli 601
- The pathogenicity of the bacillus botulinus A J HINALLMAN Med J & R c 92 ccxvi 406
- Report of a case of tularemia W H LIVERMORE J Oklahoma State M As 1927 xx 186
- Studies on a paratyphoid infection in guinea pigs III A second type of salmonella naturally appearing in the endemic state J B NELSON J Expt Med 1927 li 54
- Microbic virulence and host susceptibility in paratyphoid enteritis infection of white mice XII The effect of diet on host resistance Further studies J W PRITCHETT J Expt Med 1927 xli 53
- Enterohemorrhagic pyrocytosis L CARPI Riforma med 9 7 xli 00
- Immunization against staphylococci and staphylococci an experimental study W LOEHR Arch f klin Chir 19 cxli 3 1
- Epidemiological aspects of the recent poliomyelitis outbreak in Fort Worth Texas J H CROUCH Texas State J M 1927 xxxiii 414
- The clinical aspect of the recent outbreak of antior poliomyelitis in Fort Worth Texas C O TERRELL Texas State J M 1927 xxxii 416
- Experiences with local vaccine treatment J BAUMANN Zentralbl f Chir 192 li 1866

MARCH 1928

International Abstract of Surgery

Supplementary to
Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H MARTIN Chicago
SIR BERKELEY MOYNIHAN KCMG CB Leeds
PAUL LECENE Paris

SUMNER L KOCH Abstract Editor

DEPARTMENT EDITORS

| | |
|--|---|
| EUGENE H POOL General Surgery | LOUIS E SCHMIDT Genito Urinary Surgery |
| FRANK W LYNCH Gynecology | PHILIP LEWIN Orthopædic Surgery |
| JOHN O POLAK Obstetrics | ADOLPH HARTUNG Roentgenology |
| CHARLES H FRAZIER Neurological Surgery | HAROLD I LILLIE Surgery of the Ear |
| F N G STARR Abdominal Surgery | L W DEAN Surgery of the Nose and Throat |
| CARL A HEDBLOM Chest Surgery | ROBERT H IVY Plastic and Oral Surgery |

CONTENTS

| | | |
|-----|--|---------|
| I | Index of Abstracts of Current Literature | iii |
| II | Authors | ix |
| III | Editor's Comment | x |
| IV | Abstracts of Current Literature | 173 232 |
| V | Bibliography of Current Literature | 233 258 |

Editorial communications should be sent to Franklin H Martin Editor 54 East Erie St Chicago
Editorial and Business Offices 54 East Erie St Chicago Illinois U S A
Publisher for Great Britain Bell & Co 8 Holford St Covent Garden London W C

CONTENTS—MARCH, 1928

ABSTRACTS OF CURRENT LITERATURE

| SURGERY OF THE HEAD AND NECK | |
|--|-----|
| Eye | |
| RADOS A The Nutrition of the Eye | 173 |
| CONSTANS G M Ocular Pemphigus | 173 |
| ADLER F H Ocular Disorders in Deficiency Diseases | 173 |
| DERBY G S and CARVILL M Anterior Ocular Tuberculosis | 173 |
| HOPKINS J G The Treatment of the Commoner Syphilitic Lesions of the Eye | 173 |
| HOWARD H J Trachomatosis of the Eye and Its Aftermath in Man | 174 |
| WRIGHT R E Two Cases of Granuloma Involving the Orbit Due to an Actinomyces | 174 |
| WUNDERMANN H A The Relation of Cupping of the Optic Disk to Visual Fields in Glaucoma | 174 |
| REESF A B Entropion Uvulae | 174 |
| BUTLER T H Three Cases of Embolism of a Retinal Artery | 175 |
| SOMBERG J S Optic Nerve Pallor Without Functional Disturbances in Leucitis | 175 |
| Ear | |
| FRASER J S and NELSON S H Deaf Muteness Due to a Bilateral Lesion of the Auditory Sensory Nerve | 175 |
| STEWART J I Herpes Zoster Oticus | 75 |
| SYMONDS C P Cranial Nerve Palsies in Otitis Media the Syndrome of the Posterior Fossa | 175 |
| DE KLEIN A and VERSTEEGH C Some Remarks upon the Present Position of the Physiology of the Labyrinth | 175 |
| PORTMANN G The Sacculus Endolymphaticus and an Operation for Drainage for the Relief of Vertigo | 76 |
| Nose and Sinuses | |
| FINCH H P Tissue Changes in the Nasal Mucosa Preliminary Report | 176 |
| Mouth | |
| DOUBLEDAY I N On Chronic Fusospirillary Infection of the Periodontal Membrane and Its Treatment | 76 |
| JOBSON G B The Surgical Correction of Cleft Lip and Cleft Palate | 176 |
| HENSEN J A The Impotency of Pediatric Care in the Operative Treatment of Marrow and Cleft Palate | 176 |
| LIVING J Some Phases of Intra Oral Tumors with Special Reference to Treatment by Radiation | 177 |
| BURNHAM C F Radium in Intra Oral Cancer | 177 |
| DUFFY J J The Cervical Lymph Nodes in Intra Oral Carcinoma | 177 |
| Neck | |
| MARTIN K A The Conditions under Which Iodine Will Cause a Change in the Basal Metabolic Rate in Man I Its Occurrence in Conditions Other Than That of Grave's Disease | 177 |
| TIBBUTT A H and WOODHILL A R Aberrant Thyroid Tissue | 178 |
| BERNARD R The Surgical Treatment of Cancer of the Cervical Glands | 27 |
| SURGERY OF THE NERVOUS SYSTEM | |
| Brain and Its Coverings Cranial Nerves | |
| DEL RIO HORTIGA P and PINFIELD W Cerebral Cicatrix The Reaction of Neuroglia and Microglia to Brain Wounds | 179 |
| LIWIS D and LEE F C On the Glanglionic Elements in the Posterior Lobe of the Human Hypophysis | 179 |
| GARCIN R The Syndrome of Unilateral Paralysis of All of the Cranial Nerves A Contribution on Tumors of the Base of the Skull | 179 |
| SCALONE I The Experimental Anatomicopathological Basis of the Surgical Treatment of Neuralgia of the Trigeminal Nerve and the Changes in the Cerebral Ganglion in Retrograde Anesthetic Neuritis | 180 |
| FRANZ C H Trigeminal Neuralgia Fourteen Years Experience with Fractional Section of the Sensory Root as the Major Operation | 180 |
| Sympathetic Nerves | |
| IOUBACHEFF S The Results of Periauricular Sympathectomy According to an Inquiry Made Among Surgeons of Russia in 1926 | 181 |
| Miscellaneous | |
| SYMONDS C P Cranial Nerve Lesions in Otitis Media the Syndrome of the Posterior Fossa | 175 |
| LEPOUTRE C Permanent Nerve Disturbances Resulting from Spinal Anesthesia | 29 |
| SURGERY OF THE CHEST | |
| Chest Wall and Breast | |
| LAUTHIER L M LÉVY C and DESA Paretic Disease of the Nipple Is Not a Simple Precancerous Dyskeratosis But a True Epidermotrophic Carcinoma Requiring Early and Complete Removal of the Breast | 182 |

OBSTETRICS

Pregnancy and Its Complications

- RISMAN, P. The Theory of an Icterus of Pregnancy and Operative Investigation 15
- SCHUMANN, F. A. Observations upon the Coexistence of Carcinoma of the Fundus Uteri and Pregnancy 15
- IKEDA, I. The Etiology and Pathology of the Eucystic Infiltration of the Human Placenta 16
- DAVIDSON, H. S. The Apeutic Abortion with Special Reference to Method of Induction 16
- McQUEEN, J. D. Hemorrhage in Pregnancy 16
- CRICKSHANK, J. N. Acute Endocarditis in Pregnancy and the Puerperium. Notes on Eleven Autopsies 16
- NIELSEN, F. S. The Treatment of Cardiac Complications of Pregnancy and Labor 16
- CROSSLAND, B. C. and DAVENPORT, W. C. Pylitis in Pregnancy 16
- PUGH, W. S. Pylitis of Pregnancy. Its Treatment with the Indwelling Catheter 16
- CRAWFORD, E. G. Stricture Formation in the Uterus Following Eclampsia 16

Labor and Its Complications

- CORDON, C. A. Respiratory Emphysema in Labor 16
- MORRIS, G. C. Cesarean Section. Indication and Limitations 16
- RUCKER, M. P. The Treatment of Contractions of the Uterus with Adrenalin 16
- SCHUMACHER, P. The Mechanism of Labor in the Contracted Pelvis. IV. The Transversely Contracted Pelvis 16
- FREDERICK, C. L. Clinical Signs of Fetal Distress During Labor 16

Puerperium and Its Complications

- FINDLEY, I. Puerperal Inversion of the Uterus 16

Miscellaneous

- KOSMAN, G. W. Fundamental Training for Obstetric Nurses 16
- WAGNER, T. The Effect of the X-ray on the Development of the Embryo of the Hen 16

GENITO URINARY SURGERY

Adrenal Kidney and Ureter

- BROOKS, S. A. The Etiology and Clinical Aspects of Perinephric Abscesses 17
- CORR, B. C. and DAVENPORT, W. C. Pylitis in Pregnancy 17
- PUGH, W. S. Pylitis of Pregnancy. Its Treatment with the Indwelling Catheter 17
- CRAWFORD, E. G. Stricture Formation in the Ureter Following Eclampsia 17
- MULLER, W. A Simple Improved Method of Extracting Deep Calculi from the Ureter 17
- MUNER, G. I. Ureteral Stricture and Calculi in Children 17

Genital Organs

- WILDBOLT, H. Tests of Renal Function in Prostatitis 214
- THOMAS, B. A. and IBBOTT, J. T. Prostatic Calculi 15
- THOMAS, B. A. Vital Factors in the Management of Prostatic Obstruction 15
- MISCELLANEOUS
- KELTNER, H. J. Urological Problems in Infancy and Childhood 16

SURGERY OF THE BONES JOINTS MUSCLES TENDONS

- CONDITIONS OF THE BONES JOINTS MUSCLES TENDONS Etc
- BRENNAN, M. A. and WEAVER, P. A. Epiphyseal 217
- POGERS, M. H. The Formation of Pice Bodies in Tuberculous 217
- BRESCH and FISCHER. Two Cases of Periosteal Sarcoma. One Patient Who Was Treated by Roentgenotherapy. His Remained Cured for a Year and Eight Months. The Other Who Was Operated upon Died Five Months Later 217
- DITTRICH, K. von. The Regeneration of Tendons 8
- FICHTHOFF, E. The Pathogenesis of Tendovaginitis Stenosis 218
- MASON, M. I. and WOOLSTON, W. H. Isolated Giant Cell Xanthomatous Tumors of the Fingers and Hand 8
- HLERSON, P. F. Three Cases of Tabetic Charcot's Spine 219
- BOOTHBY, S. W. Osteodermatitis of the Spine with a Report of Two Cases 220
- FAGGE, C. H. On Injuries of the Semilunar Cartilages 20
- CUNNINGHAM, W. P. and CONLEY, A. H. Injuries to the Menisci and the Ligamentum Mucosum Commonly Called Internal Derangements of the Knee Joint 20

Surgery of the Bones Joints Muscles Tendons Etc

- KIDDER, F. C. and MURPHY, G. Comparative Results of Operative and Non-operative Methods of Treatment of Tuberculosis of the Spine in Children 20

Fractures and Dislocations

- ISAKSSON, V. Fracture of the Lower End of the Radius (Collis Fracture) and Its Treatment 21
- JACKSON, R. H. Simple Uncomplicated Rotary Dislocation of the Atlas 1
- JEFFERSON, G. On Fractures of the First Cervical Vertebra 221
- FALIN, R. Roentgenograms of Fracture of the Femur 13
- McMURPHY, I. G. A New Device for the Reduction of Fractures. Uses, Advantages and Results 213
- INBRO, K. R. The Strength of Certain Materials Used for Fixation 24

BIBLIOGRAPHY

Surgery of the Head and Neck

| | |
|------------------|-----|
| Head | 233 |
| Eye | 33 |
| Ear | 234 |
| Nose and Sinuses | 234 |
| Mouth | 235 |
| Pharynx | 35 |
| Neck | 235 |

Surgery of the Nervous System

| | |
|--|-----|
| Brain and Its Coverings Cranial Nerves | 36 |
| Peripheral Nerves | 37 |
| Sympathetic Nerves | 237 |
| Miscellaneous | 237 |

Surgery of the Chest

| | |
|---------------------------|-----|
| Chest Wall and Breast | 37 |
| Trachea Lungs and Pleura | 37 |
| Heart and Pericardium | 38 |
| Esophagus and Mediastinum | 238 |
| Miscellaneous | 238 |

Surgery of the Abdomen

| | |
|--|-----|
| Abdominal Wall and Peritoneum | 239 |
| Gastrointestinal Tract | 239 |
| Liver Gall Bladder Pancreas and Spleen | 241 |
| Miscellaneous | 242 |

Gynecology

| | |
|-----------------------------------|-----|
| Uterus | 243 |
| Adnexal and Peritoneal Conditions | 43 |
| External Genitalia | 244 |
| Miscellaneous | 44 |

Obstetrics

| | |
|----------------------------------|-----|
| Pregnancy and Its Complications | 245 |
| Labor and Its Complications | 47 |
| Puerperium and Its Complications | 248 |
| New born | 249 |
| Miscellaneous | 249 |

Genito Urinary Surgery

| | |
|---------------------------|-----|
| Adrenal Kidney and Ureter | 49 |
| Bladder Urethra and Penis | 50 |
| Genital Organs | 250 |
| Miscellaneous | 251 |

Surgery of the Bones Joints Muscles Tendons

| | |
|--|----|
| Conditions of the Bones Joints Muscles Tendons | |
| Etc | 51 |
| Surgery of the Bones Joints Muscle Tendons Etc | 53 |
| Fractures and Dislocation | 53 |
| Orthopedic in General | 53 |

Surgery of the Blood and Lymph Systems

| | |
|-------------------------|----|
| Blood Vessels | 54 |
| Blood Transfusion | 54 |
| Lymph Vessel and Glands | 54 |

Surgical Technique

| | |
|---|-----|
| Operative Surgery and Technique Postoperative Treatment | 255 |
| Antiseptic Surgery Treatment of Wounds and Infections | 55 |
| Anæsthesia | 255 |

Physicochemical Methods in Surgery

| | |
|---------------|-----|
| Röntgenology | 256 |
| Radium | 256 |
| Miscellaneous | 256 |

Miscellaneous

| | |
|--|-----|
| Clinical Entities—General Physiological Conditions | 257 |
| General Bacterial Mycotic and Protozoan Infections | 57 |
| Ductless Gland | 58 |
| Surgical Pathology and Diagnosis | 258 |
| Hospital Medical Education and History | 258 |

AUTHORS

OF THE ARTICLES ABSTRACTED IN THIS NUMBER

- Adler F H 173
 Arens I A 7
 Berglause O 3
 Be na d R
 Bernhem B M 2 5
 Bernstein M A 7
 Bohmansson C 185
 Boorstein S W 0
 B es ot 217
 Brof ldt S A 09
 B ou he J C 88
 B un n H 80
 Burnam C F 1 7
 Butle T H 75
 C mpb ll M F 31
 Carn tt J B 19 5
 Carri gton G L 85
 Ca ill M 73
 Cy la A 02
 Col v W B 31
 Conl y A H
 Con tan G M 1
 Corl s B C 3
 Cra tre F C 213
 Cru ksh nk J N
 Cul bins W I 0
 Cu ti A H
 Dal l i sen F 34
 Da fo th W C 3
 David on H S 04
 De Kl ij A
 Del Pio Ho te a l 1 9
 D rly C S 3
 D A 8
 D tt l l K 0 8
 Do ll day F N 1
 Duffy I I 7
 Eichl ff E 13
 Eskelund V 21
 F wing J 1 7
 Fagg C H 2 0
 Faltin I 2
 Feier W A 28
 Feldman M 184
 Finck H P 176
 Findley P 207
 Fischer 7
 Ira er J S 173
 Irazier C H 30
 Freed F C 206
 Friedenwald J 84
 Callagher W J 19
 Ca cin P 1 9
 Gordon C A 02
 Cr enbaum S S 5
 Haden I I 23
 Henske J A 176
 Her d n P F 19
 Hoffmann V 93
 Hopk i s J G 1 3
 Ho sley J S 187
 Howard H J 1 4
 Hu et J A 94
 Hunner G L 13
 Ikeda K 03
 Illi g o th C F W 192
 Inbe g K I 4
 I elin H 8
 J kson P H 1
 J fterson G 221
 Jobson G B 176
 Kidne F C 0
 Koenig R 200
 I ohl r A 8
 Koontz A J 8
 Ko mak G W 07
 I retschmer H I 6
 Laroche G 191
 I e F C 179
 Leonard V 8
 I epout e C 229
 L C y G 8
 I ewis D 1,9
 Lewi ohn R 187
 I ynch F W 38
 Macle na A 189
 Macrae D J 195
 Mandell aum M J 33
 Martin K A 17
 Ma on M L 2 9
 McCutchen I G 2
 McQueen J D 04
 Mel ill S 185
 Miller C J 197
 Moller W 2 3
 Mosher G C 05
 Mülle G P 195
 Muro F 2 0
 Muzen ek P 80
 Nel on S H 5
 Neu bauer F 2 6
 New ll I S 05
 Ok nczyk 190
 Paut ie I M 15
 P nñ ld W 1 9
 J eter C 30
 Pete son R 2 0
 Pfahler C F 230
 Polacco F 194
 Polak J O 199
 Portmann G 6
 Pugh W S 13
 Pado A 71
 Peese A B 1,4
 Rissmann P 203
 Pobert J T 5
 I ogers M H 217
 Poubacheff S 81
 I ucker M P 06
 I ud E 198
 Sachs L 5
 Sampson J A 01
 Scalone I 180
 Sel ill I el A 183
 Schmitz H 195
 Schumacher I 06
 Schumann E A 203
 St ldon R F 06
 Smyth D C 183
 S omberg J S 5
 Starlin er F 86
 Steinberg M I 184
 Ste nha dt B 01
 Stewa t J P 1,
 Symo l C P 175
 Tana esc 90
 Tel butt A H 79
 Tloma B A 12
 Tro ll A 92
 Ve ste gh C 1 5
 Vidroff I J 85
 Wa th n H J Jr 5
 Wicker M 196
 Widmann B I 30
 Wilf olz H 14
 Woodl ll A R 8
 Wool ton W H 218
 W ht I E 1 4
 Wuerd mann H A 1 4
 Yamamoto T 08
 Zinn W F 84

EDITOR'S COMMENT

THE persistence of virulent streptococci in the body tissues for long periods perhaps after symptom of infection have subsided is emphasized by Curtis' admonition to defer operation after streptococic infection of the tubes for at least two years (p. 20) and by Illingworth's bacteriologic study of the bile and gall bladder wall in 100 surgically removed gall bladders (p. 11). In 100 pairs of tubes involved in gonorrheal inflammation Curtis was unable to find the organism twelve weeks after the acute symptoms had subsided. No comparable study could be made with safety in the presence of streptococic infection, but Illingworth's findings of infection of the gall bladder wall in 6 of 100 cases of streptococci alone in 34 cases and of streptococci and coliform bacilli in 5 cases is definite evidence of the frequently noted clinical fact that streptococci once implanted in the body tissues remain for long periods of time as potential sources of acute reinfection.

Kilner and Muro's interesting study of the comparative results of operative and non-operative methods of treatment of tuberculosis of the spine (p. 30) emphasizes the fact that restoration of the vertebral bone must be attained before the patient is allowed to get up and that likelihood of cure is not adequate proof of such restoration. As to the value of different methods of treatment the authors conclude that cure depends principally upon a prolonged rest without weight bearing and that patients in whom fusion operation has been long required practically a long and careful after-treatment as patient unoperated upon. The main conclusion of the authors will be aided with interest since the present report indicates the constantly increasing tendency to treat benign joint tuberculosis by prolonged immobilization and heliotherapy and to reduce operative procedures to the minimum.

Frazier's report of fourteen years' experience with fractional transection of the sensory root of the trigeminal nerve (p. 150) emphasizes the advances

that have been made in a relatively short period of time in the surgical treatment of trigeminal neuralgia. It also recalls the fact that the substitution of a comparatively simple and certain procedure—section of the sensory root—for the dangerous and difficult operations such as excision of the ganglion and avulsion of its branches that were formerly in vogue and that the subsequent refinements of the operation—pre-ervation of the motor root and of the uninvolved sensory fibers in patients with involvement of one or two divisions of the nerve—have resulted almost entirely from the work of Spiller and Frazier. Lately is it the fortune of one surgeon to contribute so largely and effectively to surgical therapeutics?

Miller's comprehensive discussion of the treatment of uterine fibroid (p. 197) emphasizes particularly the specific indications and contraindications for radium treatment, myomectomy, supracervical complete and vaginal hysterectomy. He states that his experience with X-ray treatment is limited because of the satisfactory results obtained with radium. Abstinence from treatment for small symptomatic tumors, careful pre-operative preparation of the patient, gentle handling of tissue and limitation of the number of clamps used at operation to diminish the likelihood of postoperative thrombophlebitis are some of the points upon which Miller lays special stress.

Koontz's interesting report on the successful use of preserved grafts of the fascia lata of the ox (p. 228), the discussion of Lewyohn and Horsley on the surgical treatment of gastroduodenal ulceration (p. 187), Herndon's account of three cases of Chirco's pine associated with tuberculosis (p. 219), Pautrier's study of the pathogenesis and cellular pathology of the lactiferous duct of the nipple (p. 18) and a clinical review of the technique and result of post-operative roentgen radiation in patients with cancer of the breast (p. 182) are a few others of the many interesting contributions reviewed in this month's issue of the *ABSTRACT*.

INTERNATIONAL ABSTRACT OF SURGERY

MARCH 1928

ABSTRACTS OF CURRENT LITERATURE SURGERY OF THE HEAD AND NECK

EYE

Rados A. The Nutrition of the Eye *Arch Ophth*
97 11 567

This article deals with the aqueous and vitreous as factor in the nutrition of the eye to which the myopia of uveitis the hyperopia of diabetes and the question of glaucoma are related. Leher's theory that the aqueous is produced by the ciliary body was refuted by the work of Hamburger which indicated that the aqueous is produced by the cellular activity of the iris and that there is no current of secretion through the pupil. In their production composition and biological qualities the aqueous vitreous and spinal fluid are closely related.

In animals the albumin content of the aqueous is very slight except immediately after paracentesis. Under normal conditions the aqueous is ionizable but following paracentesis or in inflammatory reactions of the anterior segment it is in colloidal solution. The ionizable solution is due to dialyzation the colloidal to filtration. The aqueous is the nutritive agent of the cornea and lens but the vitreous is concerned with the nourishment of the lens especially the posterior pole the normal course of the metabolism of the lens being regulated by the capsule. VIRGIL WESCOTT M.D.

Conans G M. Ocular Pemphigus *Am J Ophth*
97 35 x 810

Ocular pemphigus is very rare. Its symptoms are general itching the formation of blebs itching and burning of the eye and redness of the conjunctiva. As a rule the condition is bilateral. In its later stages it may be complicated by symblepharon entropion corneal ulcer hypopyon or perforation.

The author reports three cases. The first was a case of general pemphigus with severe ocular manifestations the second a case of primary pemphigus of the skin with secondary involvement of the eyes and the third a case of primary pemphigus of the eye.

GEORGE R. McALLIFF M.D.

Adler F H. Ocular Disorders in Deficiency Diseases *Arch Ophth*
97 11 593

This article is a review of the findings of an experimental and clinical study of deficiency diseases as they affect the structure and function of the eye. Adler discusses xerophthalmia at length and cataracts and night blindness more briefly. The bibliography contains four references on deficiency disease in general and thirty eight on the ocular aspects of deficiency disease. VIRGIL WESCOTT M.D.

Derby G S and Carvill M. Anterior Ocular Tuberculosis *Arch Ophth*
97 11 53

The authors report a study of sixty three cases of anterior ocular tuberculosis. They believe that phlyctenular disease nodular scleritis sclerokeratitis and sclerosing keratitis are related to tuberculosis. In 53 per cent of the cases the initial inflammation of the eye was a phlyctenular keratitis. The diagnosis was based on the ocular finding a focal reaction to tuberculin (which however often fails) the signs of tuberculosis elsewhere in the body the elimination of other causes biopsy of the lesion and the findings of guinea pig inoculations.

In all but seven of the cases a recurrence developed but the periods of quiescence ranged from three to eighteen years. The mortality was high being 17 per cent. Tuberculin was used freely both the bouillon filtrate and old tuberculin. In two cases it seemed to do great harm the patients lost the sight of both eyes. In the author's opinion the best that can be said fairly of tuberculin therapy at the present time is that in certain instances it may help to cut short the attack. It does not prevent recurrence and occasionally may do serious harm. VIRGIL WESCOTT M.D.

Hopkins J G. The Treatment of the Commoner Syphilitic Lesions of the Eye *Arch Ophth*
97 11 543

The arsphenamines are the most active spirochaetocides and clinically the most effective. Bis

lary margin. Sometimes it is seen after cataract extraction when there is synchia formation between the pupillary border and the empty lens capsule.

In Group 2 there were nine cases in which the entropion resulted from the contraction of a membrane extending from the anterior surface of the lens capsule to the anterior surface of the iris. In four the primary condition was luetic iridocyclitis.

Group 3 was made up of one case in which the condition was produced by the contraction of a membrane on the posterior surface of the iris following cataract extraction with severe hemorrhage in the anterior and posterior chambers.

In Group 4 there were five cases in which the entropion was associated with iris bombé.

GEORGE R. McVULF M.D.

Butler T. H. Three Cases of Embolism of a Retinal Artery. *Brit J Ophth* 1917 11 559.

Three cases of embolism of a retinal artery are reported. In the first the condition was peripheral and there was a corresponding sector field defect. Under treatment by paracentesis massage and the use of amyl nitrite the condition cleared up entirely. In the second and third cases the emboli were situated more centrally and caused loss of vision with the exception of light perception. The cause of the condition in the first case is not stated. In the second and third cases it was endocarditis and thrombosis of a varicose vein respectively.

SAMUEL A. DARR M.D.

Somberg J. S. Optic Nerve Pallor without Functional Disturbances in Luetics. *J Ophth* 1919 35 83.

Discoloration of the optic nerves without changes in visual acuity or the fields of vision has been noted frequently. The purpose of the study here reported was to ascertain any changes in these nerves in patients undergoing typharsamide treatment. In a study of the fundi of 1000 persons with cerebrospinal syphilis Somberg noted a washed out appearance of the disk in eighty-six (4.3 per cent) and other ocular changes due to syphilis in 75 per cent. In about 50 per cent of the cases of disk pallor the condition was bilateral. In about 85 per cent of this group vision was normal in the others it was subnormal but no lower than 20/40 and occasionally a slight peripheral contraction was apparent. At the end of a two year period of observation almost 60 per cent of the cases of this group showed a primary optic atrophy without any marked functional disturbance. In 6 per cent optic atrophy with reduction of vision and field changes supervened and in the remainder the atrophy was incomplete.

The most probable cause of disk pallor without functional change is involvement of the small vessels of the central connective tissue strand of the optic nerve. The author believes that degeneration of the ganglion cell may be the prime factor in the production of primary atrophy.

GEORGE R. McVULF M.D.

EAR

Fraser J. S. and Nelson S. H. Deaf Mutism Due to a Bilateral Lesion of the Auditory Sensory Areas. *Brit M J* 1917 11 82.

In the vast majority of cases of deaf mutism the lesion is situated in the ear itself. Fraser and Nelson report in detail a case of deaf mutism in a child three years of age in which the lesion was found on histological examination to be in the auditory paths and centers.

JAMES C. BRASWELL M.D.

Stewart J. P. Herpes Zoster Oticus. *J Laryngol & Ot* 1927 41 66.

The author reports a case of zoster with a multiplicity of lesions involving primarily the vestibular ganglion on either side. It was assumed that on the left side the infection traveled up the large lymph spaces in the substance of the cochlear filament connecting the vestibular ganglion with the geniculate ganglion and probably extended downward along the chorda tympani involving the lingual nerve. It is possible also that there was a primary infection of the geniculate ganglion.

The symptoms were blisters on the left border of the tongue, a slight loss of taste, fever, left sided deafness, left sided facial paralysis and bilateral vestibular paralysis. All except the left sided deafness cleared up.

MAURICE P. WALTZ M.D.

Symonds C. P. Cranial Nerve Palsies in Otitis Media: the Syndrome of the Posterior Fossa. *J Laryngol & Ot* 1919 41 66.

The author reports four cases in which paralysis of the lower three or four cranial nerves resulted from otitis media. Involvement of these nerves may be combined with paralysis of the sixth and seventh.

Gradenigo's syndrome is assumed to be due to an extradural non-suppurative inflammation. The lower cranial nerves may be affected in a similar manner by inflammatory thickening of the dura mater surrounding their points of exit from the cranial cavity. Symonds cites a case in which such involvement was proved at autopsy. The prognosis seems to be good.

MAURICE P. WALTZ M.D.

De Kleijn A. and Versteegh C. Some Remarks upon the Present Position of the Physiology of the Labyrinth. *J Laryngol & Ot* 1927 41 649.

The author's findings in studies made on rabbits are in absolute contradiction to current views on the physiology of the labyrinth.

After extirpation of the entire saccular macula on one side the rabbits showed no spontaneous vestibular disturbances and all labyrinthine righting reflexes could be evoked normally. Therefore in rabbits the saccular maculae are not responsible for the known vestibular labyrinthine reflexes.

When complete extirpation of the labyrinth was done on one side and partial extirpation on the

other only to semicircular canals being left to function post rotation nystagmus in all directions horizontal vertical and rotatory could be evoked

In clinical case of cerebellar lesions it was found that the strongest post-rotational nystagmus is that in which the quick component is at the side of the extirpation or lesion. Incidence of cerebellar lesions thus seems absent. *M. A. D. I. W. A. T. M. D.*

Poimann G. The Succus Endolymphaticus and Its Role in the Development of the Vestibular System. *J. A. S. M. D. L. d. 9. 86.*

The author reports on some preliminary operation for each of the acute lymphatic. The technique employed is simple. The procedure is made through the middle of the ear without any connection with the middle ear. The author has been successful in the treatment of vertigo by this operation. *J. A. C. B. M. D.*

NOSE AND SINUSES

Fack H. P. T. The Sinusitis in the Nasal Mucosa. *P. I. M. n. r. y. R. e. p. t. L. v. s. p. 9. 83.*

In acute sinusitis microscopic examination of the nasal mucosa reveals edema and increase in the mucous cells and a decrease in the eosinophiles but none of the classical signs of bacterial infection. In acute purulent rhinitis the lymphocytes are markedly increased but the eosinophiles and edema are decreased. Chronic purulent rhinitis shows a suppurative and in the case of lymphoid elements and plasma cells. In the purulent condition it is usually difficult to demonstrate bacteria in the tissue.

Vasomotor rhinitis is characterized by a marked increase in the eosinophiles. In nasal polyps various cell types are found and depend upon the character of the concomitant nasal lesion. Cystic polyps of the nasal mucosa are associated with cysts and cyst degeneration of polyps. The tissue adjacent to such formations is lymphocytic plasma cell and connective tissue changes. In atrophic conditions of the nasal mucosa there is definite reduction of all apparatus of lymphoid elements eosinophiles and other filtrate cells.

In the majority of cases changes in the sign of the cell in the lymphocytic plasma cell and eosinophiles. Lymphocytes and plasma cells are present in purulent rhinitis and eosinophiles in somotor and anaphylactic conditions.

C. E. R. M. A. L. I. M. D.

MOUTH

Doubleday F. N. On the Use of Fused Plastic in the Treatment of the Oral Mucosa and Its Tissue. *J. R. S. M. D. L. d. 9. 7. 81.*

The author discusses the characteristics of the destructive of the membrane and bone. Its form

tion occurs only when pyogenic organisms are present. Two organisms are found constantly—the spirochaeta dentium and the bacillus fusiformis. Doubleday reports three cases.

The local treatment consists in scaling followed by the instillation into the gum pockets of a drop of 10 per cent chromic acid and liquor hydrogyni peroxid. This instillation is repeated two or three times daily for about a month. It causes the formation of chromium sesquioxide and in the presence of much free oxygen facultative bacteria cannot thrive. Another beneficial effect of the acid is its inhibition of mucus secretion. Measures should be taken also to improve the general health.

G. O. R. I. M. C. L. I. F. F. M. D.

Jobson G. B. The Surgical Correction of Cleft Lip and Cleft Palate. *J. O. I. S. S. I. 19. 7. 434.*

The author deals with the complete deformity of the lip and palate. He prefers to repair the lip first. The he does after the third week and not later than the fourth month. Early operation is advisable as the premaxilla alone becomes increasingly difficult to mould. After the premaxilla has been gradually forced into place by the constant lip action there is improvement in the nasal breathing and the appearance of the face. Before the operation a roentgenogram of the thymus should be taken and a vitamin content table should be given.

In the author's case the lip, cheek and nostril are repaired first. The underlying bone is later approximated with sutures which are free from tension. When necessary a trapezoidal piece of the premaxilla is resected to facilitate closure. For cleft palate the mucoperiosteal operation is done. The incision is made in an anteroposterior direction on each side just inside the alveolar ridge and the necessary fracture is produced by pressure. Both sides of the plate fissure are then brought together and sutured with silk. The gut is used for coaptation sutures. The gauze packs in the incisions are removed after five days. Nasal catheters are replaced to prevent blockage by the packs and are removed with the packs.

The second part of the correction may be done by any of the recognized methods of mucoperiosteal flap operation but the author prefers the von Langenbeck procedure with suitable modification.

C. O. R. I. M. C. L. I. F. F. M. D.

Hinske J. A. The Importance of Pediatric Cases in the Operative Treatment of the Cleft Palate. *J. I. M. I. 9. 7. 1666.*

The author discusses the various factors of importance in the preoperative and postoperative treatment of cases of lip and cleft palate. He emphasizes that if uniformly good results are to be obtained these cases should be under the care of a pediatrician.

The most important problem is the feeding. The patient should be treated in a hospital here a special technique for feeding can be secured. Babies

harelip or a cleft of the hard palate may be fed with a rubber ear syringe. Occasionally gavage is necessary.

Roentgenograms of the chest should be made in every case chiefly to determine the size of the thymus. Reduction in the size of the thymus can be obtained by roentgenotherapy.

In a series of 103 cases controlled by the pediatrician there was only one death.

W. M. PAXON, M.D.

Ewing, J. Some Phases of Intra Oral Tumors with Special Reference to Treatment by Radiation. *Id.* 187, 19, 1, 15, 359.

Burnam, C. F. Radium in Intra Oral Cancer. *Radiology* 9, 7, 366.

Duffy, J. J. The Cervical Lymph Nodes in Intra Oral Carcinoma. *Id.* 187, 19, 1, 15, 373.

EWING discusses intra oral tumors from the stand point of structure, growth and metastasizing tendencies with special reference to their susceptibility to irradiation. He deals at some length with cancers of the lip and tongue, epitheliomata of the alveolar ridge and tonsil, lymphosarcoma of the tonsil and pharynx, tumors of the nasal mucosa, neuro epitheliomata of the superior maxilla, carcinoma of the maxillary antrum and fibrosarcoma of the perosteum of the superior maxilla. Mention is made of individual peculiarities of the various tumors which in large measure determine the treatment to be applied. Pathological data bearing on the control of the lymph nodes in malignant tumors in and about the mouth are also considered. Observations tend to show that the common mode of extension is by embolism; therefore the extreme surgical procedure of removing the primary tumor and the nodes *en bloc* is not indicated in all cases. Because of the results attainable by radiation the practice of leaving the nodes until they show clinical signs of involvement seems to be justified. As ulceration and infection accelerate the progress of the neoplasm and multiply the complications care must be taken to prevent them as far as possible and control them when they have already developed.

BURNAM considers only epitheliomata of the mouth. He discusses their pathology briefly and advocates biopsy for diagnosis. He classifies them according to their site of origin and calls attention to their great variation in malignancy. The application of radiation to epitheliomata in general is discussed. From his own observations the author concludes that epitheliomata of the oral cavity do not require any heavier dosage to obtain lethal effects than those of the skin, the lip or the uterine cervix.

Surface applications are used to advantage in superficial lesions. In the author's cases the treatments are given in a single sitting whenever possible. When implantation is chosen gold covered emanation points are buried in the tissue and withdrawn after the desired dosage has been obtained. The filtered tube does not produce the necrosis or the pain caused by the bare tube technique. It is possible by

this means effectually to eliminate epitheliomata of considerable size almost without pain and without deformity. In cases of deep lesions surface applications are often of supplementary value to the implantations.

As regards the field of applicability of radium Burnam is of the opinion that any lesion in the mouth which can be cured by surgical extirpation or electrocoagulation can be equally well cured by radium.

DUFFY states that the chief essential in the therapy of intra oral carcinoma is treatment of the cervical lymph glands not only in cases with metastases but also in the earlier stages when no cervical nodes are palpable. Prior to the use of irradiation the treatment of choice was surgical removal of the adjacent lymph glands with the primary lesion. Since then conservative treatment by irradiation has been favored and the results in cases irradiated in the period from 1917 to 1924 indicate that this treatment is a rational one.

WOLFE HARTUNG, M.D.

NECK

Martin, K. A. The Conditions under Which Iodine Will Cause a Change in the Basal Metabolic Rate in Man. I. Its Occurrence in Conditions Other Than That of Graves Disease. *Am. J. Hyg.* 19, 1, 15, 648.

The beneficial effect of iodine in Graves disease is well recognized. The course of this disease under iodine therapy has been fairly well studied but the mechanism of the temporary fall in the basal metabolic rate and the clinical improvement is not clear. Plummer has supported the theory that in Graves disease the thyroid gland produces an active agent abnormal in quality and quantity which is responsible for all of the manifestations of the disease and is either neutralized or inactivated by iodine. The only other theory is that advanced by Marine who believes that iodine causes within the thyroid a rapid accumulation of colloid which brings about a pressure retention sufficient to block the excessive secretion of the gland.

Marine's theory suggested to the author that it might be of value to study the effect of large doses of iodine on the basal metabolic rate in clinical conditions other than Graves disease. For such a study he selected cases from the New Haven (Connecticut) Hospital and Dispensary and divided them into the following five groups:

1. Cases in which there was an increase in the basal metabolic rate not due primarily to thyroid disease—cases of leukemia, polycythemia and primary anemia.

Cases of postinfection diseases.

3. Cases in which the basal metabolic rate was normal but the iodine content of the thyroid appeared to be below the physiological limit.

4. Cases in which the basal metabolic rate was below normal—cases of hypothyroidism and myxedema.

5. A group of normal controls

The basal metabolic rate was determined by the Roth Benedict closed circuit method. As soon as satisfactory readings were obtained the patients were given 5 drops of Lugol's solution by mouth three times a day. The basal metabolic rate was then checked at intervals of seven and fourteen days. It was found that no changes could be detected with practically the same degree of certainty when the determination were at these intervals as when they were made more frequently.

The twenty-nine subjects studied included four normal controls, two patients with small cell myophatic leukemia, four with primary anemia, two with polycythemia, two with acute rheumatic fever in the afebrile stage, seven with simple goiter and symptoms of iodine deficiency, three with hypothyroidism including myxedema. Half of them had received their thyroid iodine therapy and five with hypothyroidism also had myxedema which had retreated with iodine therapy.

The article includes graphs which show the varying influences of iodine therapy on the different groups.

The normal controls showed no appreciable change in the basal metabolic rate during the period of observation.

In the case of simple goiter with symptoms of iodine deficiency the basal metabolic rate rose gradually during the first week with a slight rise in the second week.

In the case of hypothyroidism and myxedema the previous therapy there was an appreciable change.

In the case of hypothyroidism and myxedema without previous therapy the basal metabolic rate showed a marked increase in both the first and second weeks.

The cases of primary anemia showed a marked and constant fall from an increased basal metabolic rate during the period of observation.

The thyroid cases of the myxedema showed an increase in basal metabolic rate which fell rapidly under the therapy.

The latter this selected group of cases shows that the basal metabolic rate can be made to rise also in conditions other than those associated with administration of iodine. The change is not rapid and transient but slow and lasting.

The manner in which the intake of iodine influences the basal metabolic rate in the disease is still under discussion. Reber and Marine have reported that after the administration of iodine in large doses a hyperplastic gland secretion

is converted into a colloid goiter, the alveoli become distended with colloid and the lining epithelium is changed from a high columnar to a low cuboidal type. Such a histological picture suggests that the secretory portions are under pressure and hence the amount of thyroxine secreted is markedly diminished.

Sturgis has shown that iodine has no effect on the toxic symptoms induced in rabbits by the intravenous injection of thyroxine. It has been shown also that if the chemical composition of thyroxine is changed it has no effect on its production in man. If the change in the symptom is due to neutralization of the toxic substance by the action of iodine the change will theoretically be constant as long as the iodine is maintained as constant.

The most marked effect is produced when the iodine is given in a potent elixir dosage over a short period of time. If small doses are given over a longer period the effect is from a hypoplastic gland to a colloid state, so gradual that the function of the thyroid is not disturbed. The extent to which iodine influences the basal metabolic rate seems to have a definite relationship to the ability of the gland to store and quickly regard less of the presence or absence of thyroid disease.

W. R. D. SOX, M.D.

Tebbutt, A. H. and Woodhill, V. R. Abstract of Thyroid Studies. *Med J* 1911, 975 pp. 12 p. 358.

The authors give the development of the thyroid from the primitive germinal tissue, the phylogenetic path from the embryo of the tongue and the autonomic regard of the peripheral of the lateral lobe from the fifth pharyngeal pouch.

It is believed that the hyperplasia of the thyroid is a local development from the intercellular group of the follicular epithelial type which is present in the gland. The cells are not in the basement of the follicle but in the intercellular space.

Accessory abscesses in the thyroid gland are also a local development from the intercellular space. The abscesses are not in the intercellular space but in the intercellular space.

The conclusion is that in early embryonic life the thyroid gland is a highly migratory and adaptable outlying colony in close association with the cervical lymphatic system, which ultimately becomes a connection with the thyroid gland.

J. H. IRWIN, M.D.

SURGERY OF THE NERVOUS SYSTEM

BRAIN AND ITS COVERINGS CRANIAL NERVES

Del Rio Hortega P and Penfield W. Cerebral Cicatrix The Reaction of Neuroglia and Microglia to Brain Wounds *Bull Johns Hopkins Hosp Balt* 19 7 vi 278

The authors investigated the healing of brain wounds in rabbits and dogs by microscopic study of sections prepared by the methods of Del Rio Hortega for microglia neuroglia astrocytes and connective tissue. The lesions were aseptic stab wounds in the rabbits and more extensive cerebral injuries in the dogs. The duration of the injury ranged from twelve hours to seventy three days in the rabbits and from twelve hours to six months in the dogs.

The first cellular change was observed in microglia cells which began their phagocytic activity early and continued it for a long period of time. Later the neuroglia astrocytes about the wound became swollen and those closest to the area of destruction or to obliterated vessels underwent clasmotodendrosis. Rapid amitotic division of the other astrocytes then occurred and the cells became fibrous and arranged themselves typically in a radial fashion about the wound. A connective tissue core formed at the center connective tissue collagen fibrils were laid down and the wound contracted. In stabs where no connective tissue core was present there was no tendency toward a radial arrangement of the astrocytes and no evidence of contraction.

Compound granular corpuscles were numerous in the wounds. Transitions from microglia to these cells could be seen but there was no evidence that the astrocytes became mobile or developed into these cells. When the products of degeneration had disappeared from the wound microglia in its complicated spider like form appeared in the scar.

The report of the authors findings is preceded by a brief review of the literature.

ERIC OLDBERG M D

Lewis D and Lee F C. On the Glandular Elements in the Posterior Lobe of the Human Hypophysis *Bull Johns Hopkins Hosp Balt* 19 7 li 241

The authors have made a microscopic study of serial sections of thirty human hypophyses ranging in age from those of newborn infants to that of a subject seventy three years old.

They conclude that glandular tissue may be found in the posterior lobe at all ages but definite tubular or acinar glands communicating with the hypophyseal cleft are not found after the fourth year. Tubular glands may occur in any portion of the

posterior lobe. Their cells contain a colloidal substance similar to that found in the space into which the gland empties.

Basophilic cells closely resembling those occurring in the anterior lobe may be found in any location in the posterior lobe. Their number increases with age.

The authors discuss briefly the relation of the glandular elements to each other and to the physiology of the posterior lobe and review the findings of other investigators in the field of posterior lobe histology. The article is supplemented by a number of drawings and photomicrographs.

ERIC OLDBERG M D

Garcin R. The Syndrome of Unilateral Paralysis of All of the Cranial Nerves. A Contribution on Tumors of the Base of the Skull (Le syndrome paralytique unilatéral global des nerfs crâniens contribution à l'étude de tumeurs de la base du crâne) *Tr Soc Ch Par* 19 7 xxxv 1137

Multiple paralyzes of the cranial nerves on one side of the head group themselves clinically into a number of topographical syndromes which are dependent upon the lesions about the various cranial foramina. The author reviews the syndromes of the sphenoidal fissure, the external wall of the cavernous sinus, the petrosphenoidal fissure, the apex of the petrous portion of the temporal bone, the internal auditory meatus, the posterior lacerate foramen, the hypoglossal canal, the retroptotic space and various dissociated forms of these posterior syndromes.

These syndromes do not exhaust the possible combinations of unilateral cranial nerve involvement but they are sufficient since together they cover all of the paralytic symptoms due to lesions of the bony floor of the skull. However as their cause is neoplastic they often overlap, the extension of the tumor tending toward rapid fusion of the intermediate syndromes. This is true especially in cases of neoplasms arising within or developing in contact with the base of the skull.

From the etiological point of view the basilar neoplasms may be classified into two main groups, the subcranial and the basilar tumors. Arising as a rule in the rhinopharynx, the former extend toward the base of the skull which they perforate. Garcin reports seven cases in which such tumors gave rise to multiple unilateral paralyzes of the cranial nerves. The basilar tumors proper grow at the expense of some element of the base of the skull. Garcin reports ten tumors of the latter type which caused multiple unilateral paralyzes of the cranial nerves.

Whether the tumor is a subcranial or a basilar neoplasm, the tendency toward the unilateral diffusion of these extensive multiple paralyzes of the cranial nerves is associated with absence of signs

SYMPATHETIC NERVES

thirds with conservation of the ophthalmic portion. The primary purpose of this modification was to prevent trophic keratitis.

The failure of this operation to be more generally adopted in spite of evidence that it prevents one of the most annoying complications of the major operation is attributed to assumed difficulty in its execution and the fear that it will be followed by recurrence. In answer to such objections Frazier describes the technique showing that it does not prolong the operation by more than a few minutes, and states that since he first adopted the method in 1915 he has not found it necessary to reoperate in any case.

Frazier is becoming more and more convinced that if in the early stage of the disease the pain can be controlled in the branch or division first involved permanent and complete relief will be obtained. He calls attention to the fact that at the outset trigeminal neuralgia never involves more than one branch of a single division and that as time goes on the pain spreads to the other branches of the same division and finally to the other divisions. Later in the course of the disease when two divisions are involved it is almost invariably the case that in any given paroxysm the pain does not appear simultaneously in both but starts in the division in which it first developed and is then referred to the other division. Moreover it has often been observed that an alcohol injection into the division first involved is sufficient to control the pain in both divisions.

Therefore Frazier now sections only that portion of the ganglion which contains the fibers destined for the nerve which supplies the site of the original pain.

Because of the preservation of a portion of the sensory root the area of anesthesia after the operation is relatively small and possible areas of paræsthesia are reduced to the minimum.

GILBERT C. ANDERSON, M.D.

Roubacheff S. The Results of Periarterial Sympathectomy According to an Inquiry Made Among Russian Surgeons in 1926 (*Résultats de la sympathectomie periarterielle d'après une enquête faite en 1926 parmi les chirurgiens Russes*) *Revue de Chirurgie* Par 19 7 1927 341

Of the surgeons who replied to the author's questionnaire regarding periarterial sympathectomy thirty five had performed the operation. The total number of operations performed by them was 299. The conditions for which it was done were gangrene, ulcers of various origins, causalgia, perforating ulcer of the foot, Raynaud's disease, articular tuberculosis, chronic osteomyelitis, arthritis deformans, the congenital myotonia of Thomsen, contractures and dysmenorrhœa.

In articular tuberculosis the results were negative. Of the thirteen cases of chronic osteomyelitis only one seemed to be benefited.

In arthritis deformans the congenital myotonia of Thomsen and contractures the results were negative.

Dysmenorrhœa was relieved immediately.

Of twenty nine cases of causalgia sixteen were cured and twelve were definitely benefited.

Of the eleven cases of Raynaud's disease a definite cure for at least a year was obtained in five and improvement in three.

Perforating ulcers of the foot were cured in four of six cases.

Of fifty one chronic ulcers of various origins all of which were located on the lower extremities rapid cicatrization resulted in about one half but complete and permanent healing occurred in only about a fourth.

Fifty nine of 118 patients with gangrene were at least benefited immediately after the operation. In forty two the result was negative.

ALBERT F. DEGROAT, M.D.

SURGERY OF THE CHEST

CHEST WALL AND BREAST

P utre L M Le v C nd D A P g t
D sea e of the N ppl I N t Sumpl i e
c u Dyske But a T u Ep de mo
t pl C rc n m R qu na Ea ly nd C n
pl te R n lo f t t e B t L i l l i t
d m mel t p m pl i l l t
p é m u t t l t p l l t p
P t t l b l t t t l t p l l t p
P d P 7) 4

Paget's dis- of the nipple n t t
quently in omen about f t v ar f u In m
t i r re It s har te ize l by a c t d t v
le ion of the nipple or a la h h n t
cours may be as ocate l th H d d h a c
from the nipple Th di charg m v oc ur n
bef re any skin manifestat o i pr ent Ult mately
th l on bec mes eroded r ule ated It i ften
d a no ed as ema thou h cl inspect n will
sho small epiderm l l t s a lefinite mark l
b rd r and an durated ba e Ecz ma of t l nipple
i due a rule to p e any or s e bes In th l t
st s f Paget's d ase the nipple t a t s a l
nodul are felt first in t le brea t a d soon th eafte
the illa

D ier local ed the path lo al change the
p ierms He at f st mistook the lar e ound ell
for coec dia but lat cal ed h s e o He goup d
under the gener c term dysk ato s fou d f f ent
affect n -Iaget's d e D ne d s a e m ll u
cum cont grom n l s n d mat -clama
s that th a e all hara t e d by the pr sence
f larg c ll (lat d malpighan cell) hich
different te f om ther n ghbo nd unte go
d v dual m ph lo al and l ncal cha g
I llo v n Da ier lead mo t F ch de m tolog t
accepted the term dyske r and looked upon
Iaget's d ase s a condit n v hich n v or my
not terminate n carc noma

H st l ically Iaget's d s cha act ized by
the presenc n all of th lay r of the ep d m f
num rou la ge abno mal cell h ch the uth r
c ll Iaget cell These e la ge ph ical c lls
devo d of inte cellula b id e ntl clear cyt pl sm
and la g esular often hype cl ormat c uclei
sho in sev al nul ol Karvoki e s is req t
an l may be atyp cal nd multiple Th cell app a
to reach t e uppe l yer of the sk n by act ve
inva ion f the epiderm rath r th n by b n
ca r d up a d b the su und ng cells The so
called mantl cells so often d s shed ar n real ty
malpighan c lls h ch la c n aded by th
Pa t cell The large ou o often em
phasized n desc options f i are ab
no mally kerat n ized ep lern l as r e ly
present No t an it on l as e p s r ed be

t n t l epulerm l cell and Pa et cells As no
l t l l ch n can be detected between the
ll l in the condition and those found
l n ma s fr nkly present it does not appear
l l l t un that the cells may at one time be
l t t l l i to be in the ea ly sta es of
th l d l t b come malignant In the
th l l l ct d erse sh uld not be n
l l l l the t k atose a d is surely car
t t i m th l a n g

th t l r u e e th \ sson that the condition
m t h la t f rou ducts In an ea ly
a b l l dul e found in the b e a t
th t l t demon trate gl n lular ep thel
n th l t t u d ct ju t b low the ape of the
p l Th ll of th carc ma vere ide tual
t l th f u n l th sk n and a careful h stolo
l t u l t l r cal sta ng ho ed them to be
gl n d l cell Th autho s concl de that the
c nd ton p m l c noma c f the ducts or
th r l r l n lular structure n wh ch the cells
are e f d not of h t that is hav m rated to and
th v ch the sk

In pp t f th r c clu n the authors cite al o
the oc urr ce t Paget's d e n remo s of th
bo lly other than th b e a t Am n a e res of such
cases epo ted in the l t t re of the found several
wh h w ndo b t d v a es of Paget's d e a s e
v h h th c t n u s c nd ton v s as ocated w th
car m f me deep r st ctu e -Pa et's d e a s e
of the pr um th ca cinoma of the rectum
Pa et's d e a of the glans p with carc noma of
th u ch a la l l or the skin of the
abd m n with ca noma of the sc baceous l nds
and I t d e a t of the kin o f the r m th
ca cinoma n a l u s In all f t h e case the
p o c e s a t t me-a deep carc o ma of lanfu
l r st ctures v h ch n f l t ated up r l l into th skin
M n L M

maguant lesion. Moreover in addition to this effect it has an unfavorable influence upon the blood and the rest of the body. In support of this conclusion Isehn cites experiments he carried out on rats. Although the rats were protected by thick lead tubing and only their extremities were irradiated a decided infiltration of the cornea was found later.

In Isehn's cases of breast cancer the postoperative irradiation is begun early, as soon as the patient has recovered from the operation—usually during the first week. Isehn has never seen any harm from treatment begun early. At first he gives one Sahouraud unit at a sitting, beginning with the irradiation of the supraclavicular and infraclavicular fossa and axilla from both the front and the back. The irradiation from the front is done with a filter of from 2 to 3 mm. of aluminum and a distance of 24 cm. and that from the back with a filter of from 3 to 5 mm. of aluminum and a distance of 50 cm. At the end of the first week the irradiation of the under component of the side and of the whole back is carried out. Three weeks later a second irradiation is given on the affected side with the use of a filter of from 2 to 3 mm. of aluminum.

The general condition is always considered in determining the rate of irradiation. Following the second irradiation of the affected side the treatment of the normal breast is carried out. For this a 2 mm. filter is sufficient as a rule.

After the treatment the patient is kept under close observation for a period of years and is seen at frequent intervals usually every month. At each visit a careful physical examination is made. The presence of intercostal neuralgia is of importance as it often denotes spinal metastasis. When recurrence or metastasis occurs the use of weak filters will cause the skin to break down. Both the filters and the irradiation must be strengthened. Isehn reports the following results:

A patient operated upon in 1904 had carcinoma tous metastases in the supraclavicular gland in 1906. She was irradiated up to the point of slight injury of the skin. Five small recurrences developed in the scar. One was excised and the other irradiated. The patient has now remained well for twenty years.

In two other hopelessly inoperable cases equally good results were obtained. In another case the patient was operated upon in 1906 for a rapidly spreading medullary carcinoma. The prognosis appeared to be very unfavorable but the patient is still alive. In this case no irradiation was given. Isehn explains the cure by assuming that the inflammatory reaction from the operative shock stimulated the cells of the body that the carcinoma cells were destroyed.

A case is cited also to show the importance of the resistance of the normal tissues surrounding a carcinoma.

With the use of the technique described Isehn was able to obtain 50 per cent improvement in the

results of operation in the Basel clinic in the period from 1906 to 1913. In twenty-eight cases which were not irradiated immunity from recurrence and metastasis was obtained for three years in 18 per cent and for five years in 12 per cent. Of the irradiated cases—twelve with a radical operation, eighteen with a non-radical operation and six with a recurrence and glandular metastases—immunity was obtained for three years in 39 per cent and for five years in 30 per cent. In 1921, seven of the patients who were treated by irradiation in 1908 were in good health, two had died of cancer and three had died of other diseases or old age. Of the patients still living none had had a pure scirrhus carcinoma.

Isehn has found that in inoperable cases X-ray treatment often renders the case operable.

ALTON OCHSNER, M.D.

TRACHEA LUNGS AND PLEURA

Mandelbaum, M. J. Reverse Tracheotomy (An Original Method for Rapid Tracheotomy with a New Instrument). Preliminary Report. *Laryngoscope* 25: 7, xxx, 187.

The author presents an original method of reverse tracheotomy which has been tested on animals, human cadavers and patients. The reverse tracheotomy is a semi-circular hollow cannula curved on its long axis in an arc equaling about half a circle. At the upper end is the handle and beneath this is the cannula opening through which the knife end of the shaft is inserted.

The patient is operated upon in the sitting or lying position. The operator uses his right hand to pass the tracheotomy while his left index finger is inserted over the dorsum of the tongue to hook over the epiglottis and thus fix the larynx and from there is forced between the vocal cords to emerge between any of the interspaces of the upper three or four tracheal rings. After the skin puncture has been made a proper tracheotomy tube can be inserted.

By this procedure severe hemorrhage, asphyxiation, unsatisfactory tracheal openings and septic pneumonia or lung abscess may be avoided. The insertion of the tracheotomy into the esophagus may be avoided by (1) passing the instrument between the vocal cord by direct or indirect vision and verifying its position in the tracheal canal by feeling its distal end between the tracheal rings or (2) placing the ear near its upper end to determine whether air is coming through the tube.

The author does not claim that this method should replace the classical operation but offers it as an additional procedure which under certain conditions may prove of value. GEORGE R. McALLIFF, M.D.

Smyth, D. C. and Schall, I. E. A. Pneumography by Lipiodol. Its Present Uses and Limitations. *Bull. M. & S. J.* 92, ccc, 11891.

The authors state that there is no simplified method of using iodized oil to obtain information in obscure lung conditions. They believe that iodized

oil should be employed in all conditions only when other diagnostic method have failed

In the Thoracic Clinic at the Massachusetts General Hospital patients with tuberculo are not subjected to broncho copy or X-ray examination with the use of lipiodol

In the diagnosis of lung abscess lipiodol has not proved of material assistance. Abscess cavities usually communicate imperfectly with the bronchi. The introduction of oil after the spiration of pus from the terminal bronchus was often followed by massing of the oil which was erroneously interpreted. Experiments on dogs have demonstrated that 40 per cent of lung injected with lipiodol show the picture of pulmonary abscess. Solutions weak enough to prevent massing are too opaque to cast shadows.

In the method employed by the authors the oil is introduced into the main bronchus. The body temperature following thorough cleansing by broncho copy and the patient is then placed in a position which will cause the oil to enter the desired area. In tracheal abscess it has been found impossible to obtain fluid levels and to date only two cases have been seen in which the abscess communicated with the bronchus so that direct bronchoscopic examination was possible.

Bronchiectasis and stenosis can be easily demonstrated by the use of the oil but bismuth tubate is better.

In the authors opinion any case obscured enough to require pneumography is a doubtful diagnosis. It is obscure enough to require direct bronchoscopy and if the two procedures are limited the more important at the present time.

WILLIAM E. SISK, M.D.

ESOPHAGUS AND MEDIASTINUM

I. Iedenvald, J. Zinn, W. F. and Feldman, M.

Cancer of the Esophagus. *J. W. S.* 97
169

Cancers of the esophagus constitute a very considerable percentage of carcinomata of the gastrointestinal tract. Their report of frequency varies from 5 per cent (Cutman) to 20 per cent (Fortis). This article is based on a study of 8 esophageal cancer occurring in 600 cases of carcinoma of the gastrointestinal tract.

The disease is most common between the fortieth and sixtieth years of age but has been known to occur before the fortieth year. The average age at which it develops is the fifty-fifth year in males and the fifty-eighth year in females (Turner). It is from five to seven times more common in males than in females.

The growth is usually located at one of the physiological narrowings of the esophageal lumen—the entrance of the esophagus or the aortic constriction or diaphragmatic constriction. Anson and Turner agree that in female the growth is found more commonly in the upper third of the esophagus whereas in males it is usually situated lower.

Squamous celled epitheliomata and adenocarcinomata constitute more than 90 per cent of esophageal tumors. Esophageal carcinoma usually primary in the esophagus but occasionally may be secondary to carcinoma of the pharynx, thyroid or cardia. It attacks the mucosa first. Later it spreads from the superficial beginning to involve a large portion of the esophagus. Its direction of growth may be longitudinal or circular. Eventually the esophageal lumen becomes occluded and hypertrophy and dilatation occur above the lesion. The tumor cells invade the coats of the esophagus and extend to the surrounding structures and adhesions form between the esophagus and these structures. Infiltration of the cervical glands and sometimes of the left supraclavicular glands may occur early. The tumor may perforate into the bronchi, lungs, aorta or pericardium and may form metastases in the lungs, pleura, spine and thyroid. Hemorrhage from the erosion of a vessel is a frequent cause of death.

The early symptoms of cancer of the esophagus are vague and uncertain. Before there is any interference with deglutition the patient may complain only of unusual sensations in swallowing and a lump in the throat. Other symptoms are slight discomfort in the back between the upper cartilage and the shoulder, or abdomen, a cough, hiccup and increased mucus secretion in the throat. One of the most prominent later symptoms is dysphagia. In its early stages the dysphagia is usually intermittent and caused by spasms. Early ulceration may be responsible for the regurgitation of small amounts of blood and the appearance of blood in the stools. Loss of weight and hoarseness are usually late symptoms. The authors report a case in which cough and hoarseness were early symptoms but the esophagodyphagia at any time. Eventually the condition causes intense pain and severe and progressive difficulty in deglutition. Dilatation above the obstruction is a suggestive test when the obstruction is in the third of the esophagus. In the later stages the usual general symptoms of carcinoma appear and the treatment as for other stomach tumors still other symptoms are produced.

Cancer of the esophagus should be suspected when there is a complaint of dysphagia, regurgitation of food, or a mass in the upper part of the chest. The physical examination of the chest and abdomen is of little value. The roentgen-ray examination of the esophagus by esophagography should always be preceded by fluoroscopy. Under the fluoroscopic the earliest sign is a slight elevation of the distal end of the barium. Discomfort is equivalent to the barium esophagus. Films are unsatisfactory in the later stages. Esophagoscopy gives the most accurate information but is not without danger as perforation may result from instrumentation. It is of advantage if direct visualization and the removal of a piece of tissue for biopsy.

According to Jack the indications of early cancer as seen on esophagoscopy are (1) absence

of one or more of the normal radial creases between the folds (2) asymmetry of the inspiratory enlargement of the lumen (3) a sensation of hardness of the wall on palpation with the tube and (4) failure of the involved wall to wrinkle readily when it is pushed upon with the tube mouth

Other characteristics emphasized by Jackson are a tendency of the œsophagus to bleed rigidity of the œsophageal wall and absence of dilatation above the lesion except in the advanced stages of the condition

In the differential diagnosis the following conditions must be ruled out benign strictures such as those caused by the swallowing of caustics syphilitic strictures simple ulcers with stricture cardiac spasms with idiopathic dilatation of the œsophagus and external pressure on the œsophagus from an aneurism mediastinal tumor or affection of the spine

The prognosis is always poor but the squamous celled epithelioma is less malignant than the adenocarcinoma The duration of symptoms averages four and a half months but ranges from three weeks to two years

The immediate cause of death is inanition cachexia perforation or hæmorrhage due to the ulceration of a large vessel

When the diagnosis is established surgical interference must be considered Removal has been moderately successful in a few cases and its results would undoubtedly be improved if the patients came to operation earlier Gastrostomy is the best palliative procedure but should be performed before the very late stages while the patient is still in good condition It gives great temporary relief and prevents death from starvation

Dilatation with bougies is of doubtful value and associated with the danger of perforation Radium and the roentgen rays give little relief The use of radium has caused perforation

The diet should be regulated to prevent irritation

Palliative measures are advocated since radical removal is associated with great danger and only a remote chance of success C S PLATT M D

Carrington G L. Experimental Surgery of the
œsophagus 111 S 8 92 1891 505

A number of approaches have been tried for operative work on the œsophagus In the neck an incision along the anterior border of the sternocleidomastoid muscle gives satisfactory access In the chest the long intercostal incision popularized by Torek and the posterior mediastinal route are used most frequently A few surgeons prefer the anterior route removing the sternum

With regard to the necessity for drainage there is a difference of opinion Some surgeons establish air tight drainage while others close the wound air tight without a drain Maintenance of lung expansion is

of first importance as the pleura seems to be more easily infected in the presence of a pneumothorax

In the technique used in the author's experiments on dogs the œsophagus was encircled by narrow tapes placed 2 in apart and drawn tight enough to prevent leakage but not tight enough to damage the muscular coat Next an antiseptic solution was injected through a small incision or by means of a Luer syringe and left for a sufficiently long time for sterilization The œsophagus was then cut and the anastomosis made with a row of continuous sutures through all of the coats a row of interrupted Lembert sutures through the muscle and adventitia invaginating the first row and a row of 6 interrupted Lembert sutures through the muscle and adventitia to relieve tension

The results were successful in 50 per cent of the dogs on which this operation was performed by the cervical route and in 33 1/3 per cent of those on which it was done by the thoracic route Strictures were avoided by establishing the anastomosis with the viscus fully expanded Marginal ulcers at the site of the anastomosis were caused by the sutures in almost all of the animals but Carrington considers silk better than catgut because of its durability The chief problems in œsophageal surgery are the prevention of tension and infection

CHESTER L CREAN M D

MISCELLANEOUS

Melville S and Others Discussion on X Rays in
the Diagnosis of Intrathoracic Growths B I
M J 192 11 75

Since the roentgen ray has been used in the examination of chest lesions the diagnosis of intrathoracic growths has been greatly facilitated

Of benign neoplasms the authors discuss fibromata and teratomata The roentgen evidence of a fibroma is a well defined rounded opacity usually arising from the posterior wall of the thorax The use of artificial pneumothorax may aid greatly in its recognition Teratomata commonly arise in the anterior part of the chest they are fairly well defined though often markedly irregular

Carcinoma of the lung is comparatively common constituting over 4 per cent of all carcinomata The roentgen signs presented by it depend largely on the stage of its development its location and the secondary manifestations produced by it The occurrence of sarcoma as a primary malignancy of the lung is doubtful The glandular enlargements of Hodgkin's disease are usually associated with similar enlargements elsewhere Tumors of the mediastinum although readily recognizable as such in the roentgen examination frequently cannot be differentiated as to their origin or nature To decide whether or not pulsation is transmitted is often difficult ADOLPH HARTUNG M D

SURGERY OF THE ABDOMEN

GASTRO INTESTINAL TRACT

Brunn H Card osp m S g Cl \ t 9

Brunn t t t t the cau e of ca ho pr m is un kno n r l th t the te m ard j m a m i nome r the co lit i t t t cr dnc end of the stomach but t t h l e end of the o phagus The symptoms re f rly typic l

A ca e op rate lupo by Brunn v r th t of a man forty eight v rs f ge ho f st t el d f f u l t n swall wing t e ty f e year prev i u ly For three months bcf e he c l t d B un n h h b en un able to s all h i f o d

\ v c aminat n h v l m ked dilatatio f the asophag and phago copv e e l a s c ab ut 8 c n i n d m t r

As it wa clear e l t that Plumm e d lat ou l n t j r thr ough the mall j eni g int the ston h the m th l of Mikulcz w us d the tomach being open t and the o phagu dilated manually Afu t ge dilatatio v obta e l

The patient m l v n e tful reco v g uined 3 lbs a l i n o v a b l e to s t a l l o v n l d of food thout d e m f r t H R R W F r N M D

Sta l l i n g F F l e R e u l t s of T n t y I Y e a
O p e r a t e T r e a t m t t e G s t a d D u e l
U l c e r (l k l j b j t T l j
l G l k k h t l M k l l Z l f
j l m l l f k l t j 9 7 d 8

In th e e of 56 p t n t i t e l l f r g t or duo l al u l e r b j p t a t i n t e r f o r e l i t h a total r t a l t f j n t The j r a t o i n c l u d e t r u t n s d e l e l e j f a r a t h e y c u l l e l e t e r m l

Of the 6 p a u t n t h o e p e n e t e d j d c a l l y at the p r t p e r t o 7 6 p e r c e n t d h l e of the 300 t r a t e l n t i l y at h r t 7 p e r c e n t d i e d Of th 485 p a t i n t h o p e r a t e d p b e f r D e c e m b 3 9 5 50 t r a d O f the latter 89 p r c t b e o s i d l u e d h l o s p r e t a e t h e u b l e t o r k o h e s y m p t m h c h j e c l u s e t h a r y p t o n t h t t h u l c e h h e a l l F h u n r d p t i e t c t i t u t 4 4 p e r c e n t of th s e p r t e u p o v l i c h l y a n t 6 p e r c t f i t h t e a t e d e v t e l y

If it b e u m e d t h a t r e s u l s n t h u n t r a e d c a s e s w e c h e s a m a n l t h a t t h i n t h e 7 c a s e t r e a t e d r e c e n t l y i l l s i m i l a r t h e i n c i d e n c e of c u r e n 56 s r g e l l y t r t d c a s e s o u l d b e 8 5 p e r c e n t a n d t h t f f a l u r n c l d g o p e r a t i d a t h s a n d c a s e s w i t h p e s t s y m p t m s o u l d b e 8 5 p e r c e n t F a i l u r e s u l t d 3 8 p e r c e n t of a l l c a s e s t r a t e d c o n s e r a t i v l y a n d p e c e n t f t h o s e t r e a t e d r a d i c a l l y I n f o t v t h r e e c s e t o o r m r e

i n t e r e n t n s v e r n e c e a r y t o o b t i n a c u r e I f e a c h r e p e r a t i o n r e g a r d l s a f a i l u e f t h e p r i m a y o p a t i o n v e n w h r c o s o b t a i n e d v e n t u a l l y t h e c e n e r f a i l u e i s i n c r e a s e d t o 3 3 p e r c e n t O l l y t h e t r e t t e r i a d o e s t h a u t h o r s i n c l e c f u c c e s s f a l l b e l v t h e a e a g e s r e p o r t e d b y C u l e k e

S t a r l g e r e t m a t t h a t i n n e a r l y o n e f o u r t h of a l l i c o p e r a t e l u p o t h e r e l i t t l e o r n o i m p r o v e c t T h e r v e t n o p e r a t i v e t a t m e n t t h a t w i l l g i v e r l e f o a u r a c u e i e e r v c a s e of g t r i r l u o d n a l u l c A l l i g h t h e B i l l r o t h I d i r r e c t c o l d e d t h e b e s t p r o c e d u r e

c u n t b e e t r e l y a t f i e l u t l t h e i r e s l t s W h u t l u b t g r t a l n e h a b e e m a d e i n t h e l a t t e t v h e s a s b u t t h e g o a l f a r f o m b g r e h e d

A c c o r d i n g t o t h e t e s o f t h e I n n s b r u c k C l i n i c l a p a r o t o m y i n d i c a t e d f o l l o w i g u n s u c c e s s f u l m e d i l l t r e t m e t i h n t h e \ v f i n d n g s a r a t l e a s t h i g h l y u g e t i e f u l c e r t h e c l i n i l m a f e s t a t i o s f l e a r e d t n e t a n d t h e d a n o s i f u r t h e r c a t m d b y t h e g t r i c h e m i s t r y a n d t h e p e s e n c e of b l d i t h e t l s T h e d e s i t a p a t i e n c e t o r e m e h i o k n t h e s h o t s t p o s s i b l e t i m e s h o u l d l o l t k e t o c o n s i d e r t i o n T h e s l i g h t e s t s u g s t n c f m l n a y i d e a t p l o a t o n R e s e c t n d i a b l b u t n o t i m p e a t i v e T h e m e t h o d of h e i t h e a t c o l i c B i l l o t h I I p r c e d u e v t h a B r u n a t o i

I n i p p l e g t i c u l e r t h e L e m p p j j u o s t b m v a d a b l b u t b j a t i e t s p e m i o n m u s t b l t a i d f f r e t h e p r a t i n i s p e r f o r m e d I n i f a b l d o d a l u l e r a n a n t e r i o r g a s t r o e n t e r o t m v p l u e n t e o a a s t o m o s s h o u l d b e d o n e I c e s t h e a t t m a c r o p i c f i d i n g s s e v e r e h n a l i m p t o m a n d u u c e s s f u l r e u l t s f r o m m d l t a t m e n t n d i a c e a t h y p e r t o p h y of t h e p y l o u s r s t n i d t e d I n m i l d c a s e s e p l a r r y g a t e r m y s h o u l d b e d o e a n d f o l l o w e d b c l u s e f t h e b d o m e n w o u t f u r t h e w o r k f t l e t a n d g a n e g a t i c D a m a g s h u l d b e s t b h s h e l o l y f t h r e s u n c t n t y a s t h e p o s s i b l i t y of s u t u r e I n n c o m p l t e p e r a t o n o p e r a t o n s h o u l d b e d e l a y d u n t i l a l t e n t a p e r d a s p o s s i b l e A c u t b l e d g u l r e c q u i r e s i m m e d a c t e s o n W h e p e p t i c u l c r of t h j e j u n u m i s s u p e c t e d a n e x p l o t h p r t o m y a d p s s i b l y a d j l o p e r a t i o n i l b e n c a r y S l e e e r e c t i o a d p y l o i c e c l u a r e n l g e r u s e d i n t h e t r e a t m e n t of u l c e r a t t h e I n n b u c k C l i n i c

A s t t i b l y t h e r e i s n o o p t i m a l m e t h o d of t r e a t g l l e a c o f g a t r e a n d d u o d e n u l c e r T h e i n g e n u u d e a d A k l d n m w o k e d o u t b y W o l f r h s t f i t i m p s s o n o n t h e g a s t r c s u r g e y of t h e j s t t v e n t y h e y e r s n t h e l o m of t h e

gastro intestinal fistula. The establishment of such a fistula has been the method of choice either as an independent procedure or in the form of the Billroth II method or its modifications. The unmistakable tendency to return to the Billroth I method and the adoption and modification of this method by von Haberer indicate the change in our treatment.

In the further development of the treatment it is possible that gastrojejunostomy in the form of the Billroth II procedure will be reserved for those few cases of ulcer in which after subtotal resection anastomosis by the Billroth I method or termino lateral gastroduodenostomy is impossible because of too great tension or these procedures are interfered with by extensive adhesions about the descending duodenum. It will be a question whether even in such cases a von Eiselsberg jejunostomy is not preferable. The constantly increasing number of postoperative jejunal ulcers developing even after the radical Billroth II operation is so depressing that it seems questionable whether gastrojejunostomy in any form is justifiable.

GLASS (2)

Lewisohn R. Gastroduodenal Ulcers. Partial Gastrectomy Versus Gastro Enterostomy in Their Surgical Treatment. *J. I. M.* 133: 197, 1911, 649.
Horsley J. S. Partial Gastrectomy. *J. I. M.* 133: 1927, 1911, 63.

LEWISOHN following the lead of European surgeons particularly those of Germany and Austria advocates partial gastrectomy for both gastric and duodenal ulcers. Although in gastric ulcer the choice of resection has become fairly well established the proper surgical treatment of duodenal ulcer is still a subject of controversy. The author gives again the statistics from Berg's clinic at the Mount Sinai Hospital, New York, which led him to abandon gastro enterostomy in favor of partial resection. He does not agree with Woolcy that the high incidence of gastrojejunal ulcer following gastro enterostomy at the Mount Sinai Hospital is due to the fact that many of the patients are Jews.

The disadvantages of gastro enterostomy for duodenal ulcer may be summed up as follows:

- 1 Many ulcers are not cured by this method.
- 2 Local excision of duodenal ulcers is often not feasible or possible.
- 3 Gastro enterostomy for healed ulcer with stenosis is not practical because it is impossible to tell by palpation whether or not an ulcer has healed.
- 4 Resection is difficult after gastro enterostomy.
- 5 Gastro enterostomy does not safeguard against hemorrhage.
- 6 Partial gastrectomy produces in most cases an achlorhydria which appear to be an important factor in preventing gastrojejunal ulcer.
- 7 Gastro enterostomy seems to have a mortality as high as or higher than that of resection.

Lewisohn points out that the stomach which is removed in a case of duodenal ulcer is not normal as

the pyloric end shows a marked gastritis in almost every case.

The contra indications to resection are severe diseases of the kidneys, lungs and circulatory apparatus and cases in which the ulcer is so near the common duct that radical removal is inadvisable. There were but two cases of recurrence of symptoms among thirty seven patients subjected to resection for duodenal ulcer. Lewisohn believes that in both the failure was due to the removal of too small a portion of the stomach.

HORSLEY emphasizes the physiological activities of the stomach—digestive, absorptive and motor. He states that the great majority of gastric disorders giving rise to symptoms are due to a disturbance of motor function either direct or reflex. The importance of the lesser curvature to the motor activities of the stomach must be borne in mind. The influence of the nervous system on the stomach is of importance but has been overemphasized. The attempt to standardize operative procedures on the stomach is wrong; each case should be treated according to its particular requirements. No one type of gastrectomy is applicable to every case. The bases of all gastrectomies are the Billroth I and II procedures and their numerous modifications.

It is best to attempt to restore the gastric outlet by anastomosing the distal end of the stomach to the duodenum if this is possible. Horsley describes briefly a modification of the Billroth I operation which he has been using with very satisfactory results for four years. The anastomosis of the duodenum to the stomach is made along the lesser curvature of the stomach rather than along the greater curvature, the lesser curvature being thereby kept in line with the duodenum. After the posterior sutures have been placed the anterior wall of the duodenum is split for a distance of from 1 to 1½ in. In this way the diameter of the duodenal stump is increased so that often an end to end anastomosis can be done. If an end to end anastomosis is impossible the redundant stomach can be easily infolded. The dangerous triangle is thus eliminated.

This operation has been performed on eighteen patients and in every case the postoperative course was remarkably smooth. In eleven cases it was done for ulcer in six for cancer and in one for gas trocolic torsion. All of the patients with ulcer recovered though one had a severe postoperative hemorrhage and another had a hemorrhage two years after the operation. Of the six patients with cancer one died as the result of the opening up of an inflammatory mass on the surface of the pancreas. Of the five others one is living sixteen months after the operation, two died ten and nine months respectively after the operation and two were operated upon only recently.

In the discussion of these reports C. H. MAYO stated that even when half of the stomach is removed we are not sure that we are removing all of the acid from the stomach and even if all of the

acid is removed we cannot be sure that such removal will prevent ulcer formation since marginal ulcers may occur without achylia. He regards Horslev's suggestion of making the gastrotomy along the lesser curvature as important but called attention to the fact that unfortunately most ulcers occur along this curvature.

CRIE said that r section gives the most satisfactory results in gastric ulcer but not in duodenal ulcer. In duodenal ulcer, however, resection may be necessary if other treatment fails. The type of operation indicated varies with the case.

LAHEY emphasized the necessity of trying medical treatment persistently and adequately before assuming that it has failed. In the cases of patients who have developed a gastrojejunal ulcer following gastrectomy, gastritis is the best operation if the stomach can be delayed and if the general condition is good. For cases of gastric or duodenal ulcer in which medical treatment has failed and particularly in those in which bleeding has occurred, Lahey prefers partial gastrectomy unless the patient is a poor risk and the stomach cannot be re-adequately delayed. A gastroenterostomy should be done and followed by strict dietary and medical regime.

GILBRIDE said that up to the present time gastroenterostomy is the indication to meet the requirements of the particular case has proved to be the most satisfactory procedure. The effects of the removal of the stomach are not known and as a routine measure partial gastrectomy is unurgical.

They pointed out that of 10 patients subjected to gastric stomy who were examined because of recurrent symptoms at a tertiary hospital where they had been sent by the Veterans Bureau, none gave history of adequate medical treatment before the operation.

LEWISOHN stated that all of his patients had had medical treatment before operation.

HORRIS said that medical treatment should be given in a practical, everyday capacity of people. Whether it is on a local or national level, and that for ulcer of brief duration with mild symptoms, and especially those with duodenal ulcers, it is all that is necessary. However, it is not necessary to continue medical treatment for years.

M 1115 1 M 1115 M D

B. humans on G. O. Secondary Rejection of the
Stomach in D. e. C. Conditions After Gastrotomy
Enterotomy 11/17/54 S. d. 97 Jan 56

The author re-evaluated the case in which a gastroenterostomy was performed in the symptoms recur after a short or longer period of time. The question as to what measures give the best prospects for improvement in the natural treatment of a small adapted defect is a satisfactory evaluation is best answered by dividing the cases into two groups according to the location of the symptoms.

Most of the cases were diagnosed as gastralgia with the so called Ducheaux secondary syndrome. The clinical picture was the same whether the resected specimen showed only a more or less chronic type of suppurative gastritis or in addition a peptic ulcer. In such case partial gastrectomy gives a good result.

whether ulcer is present or not. The clinical symptoms seem to depend more upon the inflammatory changes than upon ulceration and the typical period of the clinical course evidently depends upon the different stages of the gastritis.

The authors see a group of cases in which the symptoms were ascribed to the stomach and the intestine and the case is a more or less typical example. In several of the cases the gastroenterostomy seemed to have been performed on insufficient indications. In other cases the disposition to arthritis development of colitis which may have been prevented by the operation was manifested by severe intestinal pain after the gastroenterostomy. In such cases it is chiefly the changed type of gastritis acute intestinal to colitis and the illness of the small intestine that is unfavorable to the diet in the postoperative period and favors postoperative intestinal symptoms. The treatment indicated is removal of the gastroenterostomy opening. By this measure the result of dietetic treatment are improved even though a complete cure is not assured. The case seems to be a suitable one for partial gastrectomy in the cases.

The effect of a physiological passage and of friction on the action seems to be the factors of chief importance in the prevention of severe post-pericarditis terminal disturbances.

Ste nberg M E Broug le J C nd y dg ff I J
Changes in the Ch m try of the Cont nts of
the Stama h Foll w ng G st lc Op rations
1 h 5 g o 49

The reason for the disorder in the past is evidently the gastric atony is much disputed. Some investigators believe that the important factor is the lack of stimulation of the fundic glands by the contact of foodstuff with the tapal mucosa. Others are of the opinion that more rapid emptying and neutralization by regurgitation of duodenal contents are the principal factors. It is evident however that secretion does not remove the acid secreted into mucosa since the antrum contains only a small amount which secretes no acid.

In experiments on dogs the authors studied the reposition of the mammary gland in the pouch before and after gastric enterotomy and before and after a transsection. The amount of secretin was slightly decreased after gastroenterotomy and elevated one half after resection but not with resection with acidtychned.

In an experiment they introduced by tro-
chanteric access into the stomach before and after a
gastric resection, and after a resection of the
intestine in which the gastroenterotomy was left
intact. Normally it required at least an hour for the

acid to be reduced to 0.15 per cent while after the gastro enterostomy this occurred in from thirty to forty five minutes and after the resection it occurred even more rapidly

In a fourth experiment the stomach was divided and external fistula to the fundus and the antrum were connected externally by a glass tube. When beef extract was introduced into either the antrum or fundus the antrum secreted no acid whereas the fundus secreted acid in either case.

In the fifth experiment the response to beef extract and to hydrochloric acid was observed before and after resection of the antrum and after regurgitation of the duodenal contents was prevented by dividing the duodenum above the anastomosis and uniting it to the ileum. After resection of the antrum neutralization occurred rapidly but after diversion of the duodenal contents to the ileum high acidity persisted until no more contents could be aspirated. These findings demonstrated that the change in the chemistry of the stomach contents after antrum resection is due chiefly to the regurgitation of alkaline duodenal juices. BURTON CLARK, JR. M.D.

MacLennan A. Congenital Abnormalities Acquired Causes Treatment. *Brit M J* 1917 ii 818

Acute intestinal obstruction causes practically the same symptoms in children as in adults but when relief is in prospect the prognosis is somewhat less serious in children than in adults. However in many obstructions due to congenital malformations relief is impossible.

Of the congenital malformations the author discusses duodenal stenosis jejunal and ileal atresias colic obstruction rectal obstruction exomphalos Meckel's diverticulum and strangulated hernia. In all cases of developmental obstruction the bowel distal to the obstruction tends to be in a state of what might be described as embryonic spasticity. Thus a functional atresia is superimposed upon the anatomical atresia. It is to the former condition that the practically hopeless prognosis is due.

Of acquired causes of intestinal obstruction the author discusses linking of the bowel due to contracting cicatrix from tuberculous infection of the mesenteric gland strangulated omentum a strangulated Richter hernia and mesenteric embolism. He does not classify intussusception among obstructions.

The symptoms of intestinal obstruction are vomiting which is intermittent and changes in character in a well recognized manner which makes it pathognomonic visible peristalsis which may be accentuated by tapping the abdomen or lightly scratching the skin and distention which is due to the formation of gas and soon becomes associated with paralysis so that the escape of the gas gives no relief.

The treatment consists in lavage of the stomach and early operative interference. After the abdomen is open the distended bowel should be avoided a gentle search made for the undistended gut and the obstruction approached from the sound side. The

author believes that an enterostomy should be done regardless of other procedures that may be indicated. A fistula formed through the omentum shows a marked tendency to close spontaneously. To insure its function an enterostomy should be made high in the jejunum.

Early diagnosis and prompt intervention are of the greatest importance. Another factor governing the prognosis is the degree of ileus present. This depends to some extent on the amount of handling which is found necessary at operation as well as upon the nature of the obstruction and the patient's resistance. ARTHUR L. SHREFFLER M.D.

Muzeniek P. Ileus in the Material of the First Municipal Hospital of Riga (Der Ileus nach dem Material des I. Rigaschen Stadtkrankenhauses). *Dut de Zt f Ch* 1917 ci 35

This report is based on 3,4 cases of ileus operated upon during the period from 1911 to 1917—5 cases a year or 0.36 per cent of all cases of surgical disease seen in a year. In 1918 and 1919 there was a very marked increase due to the unfavorable conditions of the period of military occupation—hunger malnutrition and the use of indigestible vegetable substances and food substitutes. The races most frequently affected were in decreasing order the Jews the Germans the Lithuanians Poles and the Letts. Seventy two per cent of the patients were males. As was the case in Russia Finland and the Balkans the most common type of ileus was that associated with volvulus. Volvulus occurred in 47 per cent of the cases whereas in Germany Austria and Switzerland it occurred in from 5 to 10 per cent. This also must have been due to the economic conditions and habits of life of the people.

In 50 per cent of the 173 cases of volvulus the large intestine was involved and in 53 per cent the sigmoid flexure. In Germany volvulus of the sigmoid flexure occurred in 31 per cent. Males were affected by volvulus of the flexure eight times more frequently than females. In every case there was a mesosigmoiditis which could not be easily explained on the basis of obstipation alone. As the result of mechanical processes such as stretching and tearing of the overfilled loops which had sunk down into the lesser pelvis there occurred extravasations of blood and tears in the mesosigmoid and to the effect was added an intestinal catarrh with bacterial infection. A cicatricial narrow and long mesosigmoid and a long dilated flexure with thickened walls and narrowing of the areas where the sigmoid joins the descending colon and the rectum were the factors which disturbed the coordinated function of the flexure and mesosigmoid and led to volvulus. Frequently this occurred after an immoderate meal (holiday feasts).

Careful inspection of the abdomen nearly always reveals the axis of torsion of the flexure its configuration and its boundaries.

As a rule the evagination method of Grekow was used. In half of the cases (those treated during the period from 1911 to 1917) fixation methods were

of diarrhoea and constipation with meteorism. The first attack of pain had occurred six months previously. The pain was very severe in the region of the umbilicus and was associated with regurgitation, gurgling and the passage of considerable gas. No fecal matter was expelled. At first the attacks came on at intervals of about two weeks but ultimately they occurred daily.

Examination revealed beneath the umbilicus a firm elongated mass which could be moved about and disappeared from time to time. The reappearance of the tumor was accompanied by peristaltic movements were marked.

At operation an intussusception about a submucous lipoma of the transverse colon was found. The mass was dissected, the part of the bowel bearing the tumor was resected and an end to side anastomosis was made. The postoperative course was smooth.

Case 6 was that of a man of forty years who for two years had had attacks of iliac pain on the right side associated with vomiting and constipation. During the last attack which occurred ten days previous to the examination the vomiting approached the faecal type. When the patient was first seen by Parnescu he was sick and weak. During the examination he was seized with violent pain and peristaltic waves running from the right iliac fossa toward the hypochondrium were noted. A tumor about 40 cm long could be palpated.

The condition proved to be a cecocolic intussusception with strangulation of the appendix by an adhesion. The intussusception was disinvaginated and the appendix removed. The patient was discharged ten days later.

The author emphasizes the acute sudden onset of the condition followed by cessation or amelioration of the symptoms—cries of acute or subacute abdominal crises approaching the clinical picture of chronic intussusception. Except for the case with tumor nothing was found which explained the intussusception. The pathological changes in the bowel and appendix could be accounted for on the basis of strangulation. All of the cases were operated upon under spinal anesthesia.

In the discussion of this report ICHNER stated that in the adult acute intussusception is very rare and usually of the chronic type. Immediate operation is not necessary. In the diagnosis which is difficult the roentgen ray is of great value.

CADENAT stated that although intussusception in the adult is usually chronic and frequently due to tumor it may also occur acutely and without evident cause. In a case on which he operated the intervention was decided upon because of the intense pain rather than because of obstruction. Before operation the condition is most often diagnosed as appendicitis.

CFRNEZ agreed with Iecne that most cases of intussusception in the adult are of the chronic type and characterized by painful crises, a tumor and permanent or intermittent constipation. He

had recently seen a somewhat similar picture in a child.

OSINZIC said that the term subacute is some what confusing when it is applied to intussusception. It is used to denote cases with a history of one or more attacks followed by recovery without intervention in which there ultimately occurs an attack demanding operation. In the acute type the obstruction is the dominating sign.

MICHAEL L. MASON, M.D.

Gallagher W. J. Acute Traumatic Ulcers of the Small Intestine. Observations on the Effects of the Application of Clamps on the Gastrointestinal Tract: an Experimental Study. *Arch Surg* 1917 45: 689.

It is generally conceded that trauma may be a factor in the genesis of chronic peptic ulcer but opinions differ regarding the influence of operative trauma from clamps in the production of chronic jejunal and experimental ulcers. In the opinion of most clinicians hyperchlorhydria and operative trauma are the important causes of jejunal ulcer and Ivy contends that trauma and poor physical condition are important factors predisposing to chronic experimental ulcer.

The author performed four experiments on dogs. In the first experiment a study was made of the blanching pressure in millimeters of mercury on the gastrointestinal tracts of ten dogs. It was found that localized anemia produced for forty minutes resulted in superficial ulcers of the duodenal mucosa.

In the second experiment the pyloric region of the duodenum and stomach in ten dogs was traumatized by clamps for from fifteen to eighty five minutes with just sufficient pressure to produce blanching. In the duodenum typical acute ulcers resulted from applications of thirty two minutes duration. Shorter applications produced only microscopic erosions and cellular exudate without gross change. These acute ulcers healed rapidly leaving scar tissue, moderate dilatation and thinning of the duodenal wall and external adhesions. The clamps produced no gross changes in the stomach. Marked toxic reactions followed trauma to the duodenum.

In the third experiment a series of six procedures on three dogs ligation of the pancreatic duct and trauma to the duodenum by clamps resulted in emaciation, vomiting and delayed healing of the ulcers.

In the fourth experiment clamps were applied to the jejunum, ileum and colon in six dogs. In the jejunum and upper ileum acute ulcers resulted but these were superficial and lacked the digested appearance of those produced in the duodenum. No ulcers could be produced in the lower ileum and colon.

From these experiments it appears that in dogs the application of clamps to the duodenum or jejunum with sufficient pressure to shut off the blood supply for about thirty minutes produces typical

1 Is the wall of the gall bladder or the bile more frequently involved by bacterial infection and what organisms are most commonly found in each?

2 Is any one organism more constantly present in the early stages of the disease and therefore likely to be an active factor in the production of the condition?

3 Is there any evidence that one of the three routes of approach is the usual path of infection?

Infection of the wall of the gall bladder was found in 62 per cent of the cases. Streptococci alone were present in 34 per cent, coliform bacilli in 17 per cent and both streptococci and coliform bacilli in 5 per cent. The bile showed infection in 40 per cent of the cases. In 16 per cent the infection was due to streptococci, in 20 per cent to coliform bacilli and in 1 per cent to a mixture of streptococci and coliform bacilli. Mixed infection was therefore found in only a few instances. Staphylococci were also infrequent. In examinations of 23 crushed stones only seven proved to be infected.

Gall bladders with thick, fleshy walls were more likely than others to give positive cultures but infection of the bile could not be foretold from the clinical appearance of the organ.

The typhoid bacillus was never isolated although at least three of the patients had a history of typhoid fever. This fact confirmed the experience of Judd who failed to isolate the typhoid bacillus in twenty-one cases with a history of typhoid fever.

Examination of the various layers of the gall bladder wall yielded no evidence indicating that one layer is more prone to infection than another.

The report is of interest in demonstrating the comparatively frequent occurrence of purely intramural streptococcal infection. The findings support the present day opinion that the spread of the organisms by way of the bile either from the liver or from below, probably occurs rarely if at all.

The investigation is of interest also from the point of view of the Meltzer-Lyon test. As uninfected bile was found in 60 per cent of the cases it seems obvious that a negative bacteriological finding in this examination must be of no significance and does not even exclude gross gall bladder disease.

With regard to treatment the author states that the presence of active infection deep in the wall of the gall bladder as opposed to a catarrh of the mucosa tends to diminish our faith in those therapeutic measures which are directed solely toward disinfection of the bile and emphasizes the value of operative treatment. He suggests also that in the great majority of grosser lesions at any rate drainage by cholecystostomy is insufficient to eradicate the disease and cholecystectomy is the operation of choice.

CHARLES F. DUBOIS, M.D.

Hoffmann V. Masked Recurring Cholecystitis Without Stones (Ueber latente rezidivierende Cholecystitis sine concremento). *Berlin. Klin. Wochenschr.* 1917, 507.

In cholecystitis without stone formation the indications of disease are frequently not clear.

Often there is absence of definite colic. The so-called stasis of the gall bladder is usually dependent upon bacterial inflammatory processes which can be demonstrated only on microscopic examination. Occasionally patients with this condition are treated for months or years for gastric disturbances. The ingestion of food—especially foods rich in fat—is often followed by continuous pain in the epigastrium. The findings of physical examination are usually meager, only a moderate sensitiveness under the right costal arch being apparent.

At operation the serosa of the gall bladder has a dull appearance. The walls of the gall bladder are thicker than normal. Occasionally there are pericholecystic adhesions which if the stomach and duodenum are normal may be ascribed with certainty to gall bladder disease. Gall stones are absent. The meagerness of the findings at operation is explained only by the subsequent microscopic examination.

The condition occurs with equal frequency in both sexes and often at an early age. A relationship to pregnancy is not so easily determined as in cholecystitis with gall stones. In a few of the author's cases the masked cholecystitis had been preceded by a non-specific adenitis.

In the differential diagnosis between masked cholecystitis and gastric and duodenal disease normal findings in the stomach and duodenum indicate the presence of masked cholecystitis. The value of cholecystography in the recognition of this condition is still uncertain. In almost every instance of masked cholecystitis the gastric acidity is decreased. Anatomically the masked form of cholecystitis is essentially a disease of the gall bladder wall chiefly its inner layers. The location of the changes explains why at operation in which only the external surface of the organ is examined even advanced pathological changes are not discovered. Macroscopically the mucosa is thick but free from ulcerative processes.

Histological examination shows an exuberance of mucous glands, polypous thickening of the villi and such extensive changes in the mucosa that in certain areas the villi are entirely absent and the dense fibrous layer is covered only by a smooth layer of epithelium. The originally loose textured connective tissue has assumed a cicatricial character. As the result of recent irritation there is an inflammatory infiltration of leucocytes and lymphocytes. The microscopic findings are shown in photomicrographs.

On bacteriological examination microorganisms are never found but the histological findings show with certainty that the masked disease is based upon a bacterial cholecystitis.

The pathologically changed gall bladder is responsible also for other disturbances in the epigastrium. It constitutes an area of increased irritability which affects the surrounding tissues. An important role is played by the varying irritability of the sympathetic nervous system. To the organic trouble there may be added psychic disturbances.

Cholecystitis without stones is considerably more frequent than the purely functional gall bladder stasis. Very often the functional disturbance is the first manifestation of the changes in the gall bladder wall.

The treatment of the condition should at first be conservative—rest in bed, the local application of heat, athermy, and a diet of easily digested foods. In the author's case the symptoms were often relieved by the use of cyclopamine. If conservative treatment fails the gall bladder should be removed.

SCHEINER (Z)

Dahl I. E. Final Examination in 196 Surgery. Titled Cases of Biliary Litiasis.
(L. me. lit. u. d. t. q. t. g. t. ze)
de l. th. bl. p.) l. t. l. r. g. S. d.
9. 7. l. 9.

In the author's opinion reports in the literature do not indicate that cholecystectomy is preferable to cholecystotomy for gall stones.

Reexamined in 196 patients treated for gall stones showed that the incidence of recurrence of symptoms due to reflux of the stone or overlooked stones, cholangitis, or adhesions was frequent after cholecystectomy, a after cholecystostomy.

Cholecystectomy does not increase the risk of ascending infection of the bile passages.

La Roche G. and Huet J. A. Common Duct Stenosis. Referred by the Territorial Hospital.
phthalic Te. t. in. a. Pat. ent. W. o. Had. Been
Subjected to Choleystomy. (St. h. l. d.)
m. é. d. p. l. é. p. e. d. t. é.
d. ph. l. p. h. t. h. k. h. l.) l. e. t. m. é.
B. l. l.) S. d. d. l. p. d. P. l.) 9. 7. l. 899.

The case reported was that of a patient thirty-four years old who had been subjected to cholecystectomy for cholelithiasis following numerous attacks of hepatic colic which were associated with jaundice but little or no fever. The operation was followed eighteen months later by upper abdominal epigastric subcutaneous chills, the passage of clay-colored stools and a slight fever for three days. Palpation of the epigastric duodenal region was distinctly painful. After a lophenol phthalic acid test made three weeks after the onset of the jaundice showed stasis in the common duct.

The jaundice disappeared in five weeks and dietary treatment and the use of bismuth and antiseptic butyric acid three months later. An X-ray examination made fourteen hours after the administration of 4 gm. of sodium tetraiodophthalate in the patient in the fasting state revealed a shadow 3 cm. long by 1 cm. in diameter in the second lumbar vertebra. The stasis in the common duct near its junction with the duodenum was revealed on one-half hour later showed only a uniform spot in the area.

In the authors' opinion this as a case of biliary obstruction associated with dilatation of the common duct following cholecystectomy. There was no

evidence of pancreatitis. A roentgenogram made after the disappearance of the jaundice was negative.

Dilatation of the bile passages after cholecystectomy has been well established experimentally. Haufert demonstrated that it occurs within from thirty-six to forty-eight hours after the removal of the gall bladder. Rothman, after a few months after the operation, cholecystomized dogs may be divided into two groups: (1) those in which the sphincter of Oddi hypertrophies and the bile passages dilate into a reservoir for the bile which empties during digestion; (2) those in which the sphincter remains little dilated and the bile escapes continuously. The occurrence of dilatation of the bile passages after cholecystectomy depends upon the tonicity and resistance of the sphincter.

The frequency of dilatation of the extrahepatic bile duct in man has not yet been established. Leroche and Huet made tetraiodophthalate tests in fifteen patients from three to five years after cholecystectomy but failed to obtain a positive image. When dilatation is present the bile empties only during peristalsis. In the absence of stasis no image of the bile ducts can be obtained.

W. L. C. BURKE, MD

Polacco E. T. Study of the Extent of Functional Changes in Cholelithiasis and Gastric Duodenal Ulcer by Means of Simple and Fractional Examination of the Duodenal Juice.
(C. t. n. b. t. l. l. t. u. d. d. l. f. u. l. t. e. d. l. p. l. t. t. g. l. t. h. t. d. l. d. l. m. d. e. l. m. m. p. l. f. s. t. d. l. d. d. n. l.) 4. l. i. d. l. 927.

47

With the use of the Engholm tube, Laccos made examinations of the gastric and duodenal juice in fourteen cases of peptic ulcer and thirty-two cases of disease of the biliary tract. The technique of the tubal on is described in detail. X-ray control is the only sure method of proving the presence of the end piece of the duodenum.

In every examination made during the fast, gastric and duodenal juice of a modified Ewald test meal, Chologra was avoided, they did not perform a chemical condition.

A qualitative and quantitative study was made of the pancreatic enzyme—trypsin (pepsin) and amylase. The author is convinced that none of the three factors is an adequate index of pancreatic function. The secretion of each seems to be dependent largely on two others. No consistent parallel was noted between the enzymes and disease groups, i.e., no secretory variation peculiar to gastroduodenal disorders or biliary diseases. On the other hand, the values of the three enzymes were directly influenced by the gastric acidity regarding the form of the disease. The latter observation confirms the finding of Poplsky and Pal who demonstrated that the production of acid to the duodenum will cause pancreatic secretion even after section of the vagus and pancreatic nerve.

MR. A. G. E. L. E.

Cayla A. The Test of Shock from Cold in Hemolytic Icterus (*L'épreuve du choc au froid dans les ictères hémolytiques*) *Presse méd.* Par 1927 x xv 1152

In applying the test of the local cold bath suggested by Vidal for paroxysmal hemoglobinuria Cayla obtained the phenomenon of shock in two cases of hemolytic icterus one congenital and the other acquired. There were no apparent clinical signs but changes in the blood vessels and blood were noted—a decrease in the blood pressure a transitory leucopenia and the transitory appearance of albuminuria and urobilinuria.

In hemolytic icterus the findings of the various laboratory tests are far from being constant or the same even in a given case. Clinically there is found an entire intermediate series of conditions between hemolytic icterus and the *fruste* type of condition showing only fragility of the red blood cells. The fact that the cold test causes in the cases a transitory albuminuria analogous to that which is observed in paroxysmal hemoglobinuria indicates a relationship between the two conditions. Therefore it is possible to group the various conditions showing the phenomena of hemolysis under the term hemolytic disease as suggested by Chauffard.

The apparently well established fact that cold produces shock which is manifested by disturbances in the blood vessels and blood may perhaps explain many observations of general pathology. This shock is especially evident in paroxysmal hemoglobinuria Raynaud's disease and spasmodic coryza. So far it is possible only to speculate regarding the mechanism and sequence of the phenomena and it is impossible to say whether they are brought about by complex colloids acidosis or some other mechanism.

Although the occurrence of cold shock raises certain interesting problems regarding pathogenesis this test is not of great diagnostic interest in hemolytic icterus as it is more inconstant than the other biological reactions and occurs also in other affections. From the point of view of etiology it indicates biologically the influence which cold seems to exert in hemolytic icterus. But if cold whether by shock or by some other mechanism calls forth the hemolytic crises which are often latent but sometimes apparent it does so only in patients who are predisposed to the reaction and the cause of the predisposition is still unknown.

(R. CLIMONT) MICHAEL L. MISO, M.D.

Muller G. P. The Indications for Splenectomy *Illus. M. J.* 1927 xxvi 59

The author believes that splenectomy is very definitely indicated in some cases of pernicious anemia but just as definitely contra indicated in others. It should be done in early cases with active hemolysis. It should not be done in the cases of elderly patients.

In purpura hemorrhagica splenectomy should be done in the chronic cases. In the acute stages of the condition it is of no value. In the early period of the

disease all of the blood forming tissues are involved while in the later stages only the spleen seems to be affected.

Hemolytic ictero anemia must be differentiated from icteric conditions arising in the liver. Muller does not operate during the crisis. In the chronic cases his results have been very good.

In sickle cell anemia splenectomy is not of much value. Although in two cases the operation was followed by improvement the condition persisted.

In splenomyelogenous leukemia the mortality was at first about 87 per cent but in 1926 W. J. Mayo reported a series of cases with a mortality of 5 per cent. Muller believes that splenectomy is of value in the chronic cases but that radium and the X-ray should always be used first. He has never known of a cure in this condition but in some instances the operation has been followed by definite improvement.

In Hodgkin's disease splenectomy is of no value.

With regard to the operation itself Muller emphasizes the importance of a good anesthetic good surgical technique and extreme care to prevent tearing of the thin walled veins with loss of blood. His incision is made in the left rectus with the upper end turned outward. He advocates multiple ligations of the pedicle and is very careful to see that all raw surfaces are covered since obstruction of the bowel may follow neglect of this precaution. Whenever possible he gives a transfusion both before and after the operation.

In conclusion Muller states that when a careful technique is used and the cases are carefully selected the mortality should be less than 10 per cent.

HERMAN O. McNEETERS, M.D.

MISCELLANEOUS

Macrae D. Jr. Acute Conditions of the Abdomen Complicated by Ileus or Septic Invasion of the Peritoneum *J. M. I.* 927 lxxxi 1113

Macrae is convinced that all inflammations or severe irritations of the peritoneum produce more or less severe symptoms of obstruction. He believes that obstruction rather than peritonitis is the cause of death in fatal cases in which peritonitis has developed. His extensive experience has led him to advocate the treatment of serious or doubtful cases by enterostomy or jejunostomy instead of peritoneal drainage which is the usual procedure when peritonitis is present.

The cause of death in intestinal obstruction has not been definitely established. Bacteremia perverted secretions dehydration and toxemia are considered important possibilities. Toxemia due to the absorption of poisons produced by bacterial action on the bowel fluids which accumulate in the intestine above the obstruction has been widely accepted as the most probable cause of death in such cases. *Bacillus welchii* has been demonstrated to be the organism which flourishes most abundantly in the secretions of an obstructed bowel. Williams

has had some success with the use of bacillus welchii antitoxin in cases of obstruction

Chemical changes in the blood in intestinal obstruction have been described by Orr and Haden. There is a rise in the non protein and urea nitrogen and a fall in the chloride content.

In the light of his experience and present views concerning the cause of death in intestinal obstruction Macrae closes the abdomen *thout* drainage following removal of the cause of infection. In the presence of a general abdominal exudate he performs a jejunotomy. His technique for jejunotomy is described next! Gastric lavage before the operation and the administration of sodium chloride solution during or immediately after the operation are essential in all cases. The use of gastric lavage and erum is recommended.

M L L N T I M D

SI l d n R F Tl Cont ol of Illicup by Inl ala
tion of C bon D o d J l W l 9 7
1 8

Sheldon reports the results obtained from carbon dioxide inhalation in eleven cases of hepatic disease of idiopathic pleuritic hepatic origin. In each case the therapy was continued by twelve to twenty-four months. The results of 15 per cent mixture of carbon dioxide and oxygen are as follows:

In t o c a e the hiccup d eloped during t u
x d e g n a t h a m fow case t t gran fol
lo ing l p r s t m v in the e t t f l l e l a
c y s t o t m u d e l a l a n s t h e r a n l i n c a c e
it occur i l u r n g e t h y l e c a n a s t h a l u c e l f r
p e a t i o n f p t p t e l e n a In all the
a d m i n i s t r a t i o n o f f r m 5 t 5 6 p e r c t c b n
d i o i l e t h r r v e n b m e n f a c t h m e
o f f n l o n c b u n p p a a t u f r p l r n g i n g
f o m o n e t t m n n u t a s u f f i e n t t c t o l
t h e a l t l c p i a t r h y t h m

M E L L I T E M I D

W k M Inflammatory D sea s of the D a
phr gm nd the Is ocated D apl r gmatic
Synd me (U b t d) h f r k
d Z r hf ll d d d lb b sl t j
d ph agm le S mpt k mpl v) t f j kl
C/ 9 7 d 8 9

The daph agm is practically never le d p i
ma ilv M t daph agmatic con litio s have the r
or g n abov the d ph agm in the pleura or lu s
or bel t in th abl lca ty subdiaphrag
matic space The rr tat on of the m ol ed dia

phragm causes a definite syndrome. Acute diaphragmatitis frequently resembles acute peritonitis. It is first manifested by severe pain in a wide zone above and below the points of insertion of the diaphragm particularly in the region of the abdominal cavity which radiates back into the lumbar region. Corresponding to this spontaneous pain there is a diffuse tenderness to pressure. The most important sign is rigidity of the abdominal musculature which is diffuse and of great intensity particularly in the upper portion of the abdominal wall.

On light palpation of the abdomen there is no pain but the sensitivity does not increase as in peritonitis when deep pressure is made.

Examination of the chest often reveals on the first day but more frequently on the second or third day a nasal wheeze of diminished resonance and shallow respiration over the lower lobe of the lung. This may be due to edema alone but the early stage of the condition is often caused by the high position of the diaphragm. As the result of the inflammatory infiltration of the necrotic area of the left pleura becomes organized

If the primary condition is diaphragmatic pleural extension sooner or later to the costal pleura as the tendency of subdiaphragmatic inflammation to spread. The findings of the thoracic examination reflect whether the primary condition is pleural or diaphragmatic.

A important qualitative sign of daphnogenic development is the isolated huddle pattern (reflex action of the pharynx on other efferent branches arising from the cerebral plexus).

Due to my net of acute inflammation of the diaphragm usually within the first few days but the defence of the abdominal muscles often persists for weeks although the pain soon ceases. Unlike the halogis peritonitis the pleurisy is not rapid it corresponds to the normal red temperature. Nausea common. The disturbance of diaphragmatic function is clinically evident in the right pleurisy. The inflammatory process often spreads by continuity from right to left or vice versa.

In the author's forty-four cases the disease was most frequently of prandial phragmatic origin. Only seven were due to a subdiaphragmatic collection (abcesses, pleural malaria).

Wike e d l th t every acute p ritone l con
d t h ld be stud ed from th st3 dpoint of the
l phragm t c v dr me I fl mm tions of the
d phr grm e very c mmo but e not generall
rec gnized JANSSEN (Z)

GYNECOLOGY

UTERUS

Miller C J The Modern Conception and Treatment of Uterine Fibroids *Ohio St J* 1917
vol 899

The author reviews the modern conception of the treatment of uterine fibroids and draws conclusions based upon thirty years of work among private patients and among the colored patients in the Charity Hospital of Louisiana. Fibroids were ten times more frequent in the latter group. In the white patients because of the average intelligent regard for health the tumors were usually small but in the majority of the negro group in whom treatment was delayed the growths were large often reaching to the costal margins. Degenerative changes of all types were common. Inflammatory conditions of the adnexa were found in 92 per cent of the colored women and in these cases pain from the adnexal disease rather than the fibroid compelled medical relief. At times tumors of very large size caused no symptoms whatsoever. Bleeding in the form of menorrhagia was the most frequent symptom. Leucorrhoea was common. Pain was due to associated adnexal pathology, pressure on surrounding organs or torsion and degeneration of the fibroid.

The author concludes that many small tumors are symptomless and require no treatment. However they should be checked up by pelvic examinations at definite intervals.

Radium therapy because of its simplicity, almost absolute freedom from mortality and morbidity and generally excellent results is an ideal procedure in properly selected cases. It is exclusively a method for the gynecologist rather than the radiologist or general surgeon for an accurate knowledge of the pelvic pathology is essential. In women under forty years of age in whom preservation of ovarian function is desirable radium is not advisable nor should it be employed to treat growths larger than a three to three and a half months pregnancy which cause pressure as it may not appreciably reduce the size of such tumors. Radium has little effect upon very dense fibroids or those undergoing calcareous degeneration. In the presence of adnexal disease its use is contra indicated as it may activate latent infections and thereby cause pyosalpinx and peritonitis. It may be followed by infection also when the fibroid has undergone degeneration. Degeneration is indicated almost invariably by anemia out of proportion to the hemorrhage.

The best results were obtained by Miller in the treatment of single or multiple intramural growths within the proper size limit. A preliminary curettage was done to establish the pathology and eliminate malignancy. Polypi which are prone to slough and

cause infection after the treatment were removed. The usual adequate dose was 50 mgm of radium inserted high up in the fundus for twenty four hours.

The author's experience with roentgen ray treatment was limited because radium had given him satisfaction.

Many tumors not suitable for radiation were effectively treated by myomectomy which has its widest field in women of the child bearing age. However if pregnancy is impossible because of adnexal disease hysterectomy is a more rational procedure. Myomectomy is best adapted to the treatment of single subperitoneal or intramural growths. Menstruation returned to normal in from 80 to 90 per cent of cases. The tumors recurred in fewer than 3 per cent. The frequency of subsequent pregnancies following myomectomy makes the procedure valid from this standpoint alone. Certain points in technique must be emphasized. Hemostasis is essential. Tight sutures must be avoided or ischemia and sloughing of the tissues will occur. A preliminary curettage should be done for diagnostic purposes and to secure drainage. Multiple growths are best removed by several incisions as these will cause less damage to the uterine musculature than a single large incision.

In the majority of the cases hysterectomy was the only rational or possible procedure as the size and multiplicity of the tumors and the frequent adnexal pathology contra indicate radiation or myomectomy. Hysterectomy is always indicated for adenomyomata and for large or multiple growths in women approaching the menopause. The complete operation should be done if the cervix is lacerated or infected. If the cervix is healthy supravaginal hysterectomy as performed by the average surgeon will have a lower mortality. Vaginal hysterectomy has a definite field in obese elderly women in whom postoperative complications or abdominal hernia are possibilities. The danger of thrombophlebitis after operation for large fibroids can be decreased by gentle handling of the tissues and limitation of the number of clamps employed. The success of fibroid surgery depends not only upon the skill and judgment of the operator but also upon the pre operative preparation of the patient. Nourishing food, rest, antiseptic douches and transfusions have a definite value in converting a poor surgical risk into a good one.

Fibroids associated with pregnancy require careful observation in the absence of complications. The surgical treatment indicated depends upon the size and location of the tumor and the duration of the pregnancy. Women with fibroids should be carefully watched during the puerperium for while this period is usually free from complications torsion, degeneration

tions or necrosis of the tumor may occur and demand surgical interference

AL L F MAXWELL MD

Lynch F W Submucous Fibroids and Their Treatment J S g 9 48

In 89 cases of fibromyomatous uterus the size of a 3 month pregnancy submucous tumors were found in 66 intramural tumors in 5 and subperitoneal tumors in 71 cases. Hemorrhage occurred in 83 per cent of all cases. Fibromous growths and as often as severe enough to cause marked anemia. In one the hemoglobin was 9 per cent or less when the patient first sought treatment. Other symptoms: epai and pes re.

The treatment of submucous tumors varies with the size and position of the growth, the character and result of the symptoms and the age and physical condition of the patient. Three methods are available—surgery, roentgen ray irradiation and radium irradiation. Each of these has definite advantages and disadvantages.

The survival value in large submucous growths of the influence of endometrial degeneration upon the blood count cannot be brought up to the margin of safety for operation. It is valuable also in the case of patients with large growths who have some contraindication to operation such as moderate renal disease, diabetes, marked obesity. However, the growths not entirely removed by the radiotherapy treatment may recur and require surgical treatment. The results of treatment may be limited in levipgia and the menopausal symptoms may be quite definite.

The author believes that a lumpectomy is a more limited application than the hysterectomy treatment and should be limited to small submucous nodules in women who at the menopause have had no previous inflammation and in whom hemorrhage is the dominant sign.

Submucous fibroids may present conservative surgical attention and need not necessarily mean hysterectomy. Frequently small tumors may be removed with a curette. Larger tumors may be removed by cervical excision or gynecological hysterectomy. When the uterus is filled with small tumors hysterectomy is the method of choice.

H W F V MD

Schmit H Carcinoma of the Uterine Cervix J Obst G 9 58

Cervical erosion and hyperplasia are ulting from infection and inflammation. Both are probably to be included among the conditions predisposing to uterine cancer. Surgical collection of the cells of the cervix and adnexum and amputation of the cervix with or without hyperplasia of the stroma are the chief available methods. No definite relationship between carcinoma of the cervix and the number of labors has been established. Numerous births apparently do not increase the liability to cancer. On the other hand, injury of the cervix from birth

trauma resulting in chronic proliferative changes may be considered as predisposing to malignancy.

The treatment of cervical carcinoma should be based on the extent of the growth. In cases with fixation of the tissue the prognosis is hopeless.

The determination of the degree of histological malignancy enables the physician to render a relative prognosis. A high degree of anaplasia is always associated with a poor prognosis while a high degree of differentiation usually means a favorable prognosis unless the evidence of the tissues. The clinical. It probably finds it advisable to consider the histologic malignancy index also in selecting the method of treatment. L L COLE MD

Rud E Examination of the Blood of Patients with Uterine Cervical Cancer Treated with Radium (Blotting paper) P t t c m t c m l t h d R d m b t d l) St H H p 97

In fifty cases of carcinoma of the uterine cervix blood examinations were made to determine the changes that take place as the result of radium therapy. It was believed that a relation might be between the blood picture and the clinical course of the disease might be thereby established. The investigation included the hemoglobin content, the number of red and white cells, the cell volume, the blood platelet count, the coagulation time and the sedimentation time of the red cells.

Before radiation the blood showed a ducty in the percentage of hemoglobin in about a third of the cases and a moderate leucocytosis in about 28 per cent. In the other cases the leucocyte count was normal. In all of the cases the blood platelet count was increased and the coagulation time was greatly shortened. In most of them the sedimentation rate was increased. The last day as soon as the patient was discharged the sedimentation rate was normal. The presence of a carcinoma is ruled out especially if repeated tests show the same result.

In answer to the question whether there is a causal relation between the blood picture and the clinical picture of carcinoma of the uterine cervix Rud tests that in cases of not yet established carcinoma the red cell count is about normal, the leucocyte count is decreased, the blood platelet count is moderately increased, the sedimentation rate is decreased, the coagulation time is shortened. In rapidly advancing carcinoma on the other hand the red sedimentation rate is high, leucocyte and blood platelet count is high, sedimentation rate and coagulation time.

In the author's study blood examinations made about three weeks after radiation showed that in more than half of the cases there was a diminution in the percentage of hemoglobin and in the count and volume of the red cells. In some instances the diminution in hemoglobin amounted to 8 per cent and that in the red cell count to 150,000. The duration of these decreases was usually short. The

cause has not been determined but the variation is evidently not related to the dosage vaginal bleed in, a developing hemorrhagic diathesis increased hemolysis or infection.

After radiation treatments the leucocyte count was always diminished. In most of the cases the decrease persisted even three weeks after the radiation. The lymphocytes were most severely affected there being a true lymphopenia. None of the other forms of leucocytes (eosinophiles, basophiles, polymorphs or monocytes) showed such a constant variation. It was of interest to note that the first reaction directly following the radiation was a distinct and often very marked increase in the leucocytes. Frequently this began even during the treatment. In nearly all of the few cases in which such an increase in the leucocytes failed to occur there were signs of some infection.

No pronounced or regular changes were observed in the blood platelet count. There was no thrombopenia.

The coagulation time also failed to show typical variations.

The sedimentation rate of the red blood cells showed an increase after the radiation in 86 per cent of the cases. This increase was considerable ranging from 21 to 83 per cent of the initial value. It did not seem to be dependent upon the dosage of radiation or upon infection. The diminution of the cell volume affected it to only a slight degree. The quantity of fibrin however had an unmistakable influence and seemed to run parallel with the sedimentation rate.

The author determined also whether these changes in the blood persisted in the later course of the disease and whether they were of significance as regards the prognosis. He concluded that in cases subsequently showing an increase in the hemoglobin and red cell count the prognosis is generally favorable whereas in those showing a decrease of these values it is unfavorable. However this rule has many exceptions. A decrease in the leucocyte count indicates a favorable prognosis as does also a decrease in the blood platelet count. A lengthening of the coagulation time must be regarded as a favorable sign. Rapid places special value on the sedimentation rate. A decrease in this rate indicates healing and an increase indicates advancing carcinoma.

W. VEGELI (G.)

MISCELLANEOUS

Pohl, J. O. The Present Trend of Gynecology.
M. *esota M. d.* 1927, v. 665.

The author says that although disorders peculiar to women require just as keen an appreciation of basic pathology, physiological resistance and minute anatomy as do lesions of the eye or ear, many general surgeons do not hesitate to attack any gynecological problem whereas they would enlist the help of an expert in cases of cataract or sinus thrombosis.

Infections of the pelvis have usually a neisserian, puerperal or operative origin and each infecting agent has a definite course of invasion—a selectivity for certain tissues. In the diseased part attempts are made by successive barriers to effect isolation and extermination of the pathological process. Surgical procedure in acute pelvic infection is limited to the drainage of localized purulent foci. Fifty per cent of the pelvic lesions of women have their origin in childbirth, three fifths of the remaining 50 per cent are the direct result of infection.

Gonorrhoeal infection. The initial symptoms of gonorrhoea are usually less acute in the female than in the male. Chronic gonorrhoea in women is capable of producing greater ravages and more permanent pathological changes than almost any other form of infection. Undisturbed cervical gonorrhoea remains localized and terminates in cystic cervicitis. Though the organism cannot be demonstrated on smears, active surgical treatment not infrequently spreads the infection through the endometrium into the tubes. The frequent exacerbations of chronic gonorrhoea are in reality re-infections from Skene's glands. A cure can be effected only by glandular destruction or ablation. Endocervicitis is a frequent cause of sterility yet cauterization or operative treatment of the cervix invariably cures the leucorrhoea or corrects the sterility.

Lacerations. Birth injuries produced by the midwife are due to submucous fascial stretching and muscle injury while injuries produced by the surgeon are open wounds. The immediate repair of the perineum and fascial layers is commendable although the immediate repair of a cervical tear may be accompanied by infection. Dilatation accomplished by time and intact membranes leaves little injury and appropriate postpartum care of the cervix will permit postponement of operative treatment for definite lesions until the woman has passed the child bearing period.

Fibroids. Many fibroids produce no symptoms but all fibroids need watching. The location and circulation of the neoplasms determine their fate and development. Whether the treatment shall be radiation, myomectomy or hysterectomy depends upon the requirements of the case under consideration. The contra-indications to radiation as outlined by Clark and Keene must be appreciated. Pre-operative treatment such as the administration of glucose, blood transfusions and rest will lessen the surgical risk and the postoperative administration of fluids, sugar and chlorides will aid convalescence.

Sterility. Of cases of primary sterility due to hypofunction, atrophy, infection, malformations or impotence the male is responsible in 30 per cent. In the female primary sterility is usually due to endocervicitis and tubal infection. If the cervix is normal and the Rubin test demonstrates patent tube, ovarian function and sexual response demand consideration.

Retrosions. Both congenital and acquired retroversions slowly but progressively lead to a chain

of complications which are directly attributable to interference with the venous circulation and uterine drainage. No single method of operation is ideal for different anatomical conditions requiring special procedures. The importance of the perisary in retaining the uterus in position after the displacement has been manually or posturally corrected should not be overlooked. In the authors' clinical postpartum construction has reduced the frequency of retrodisplacements from 38 to per cent.

C. M. I. While the etiology of uterine carcinoma is unknown in certain clinical facts regarding the occurrence of cancer are definite and form the basis of treatment. Long continued irritation or infection predisposes to cancer. Cancer originates as a localized nodule or ulcer of the cervix and then totally confined to the cervix is cured by radical desferation. The blockage of the parametrial lymphatics by deep ligation treatment or by a radical operation which removes the uterus cervix and vagina and parametrium. When the growth has extended beyond the cervix radical hysterectomy is the agent of choice. Cancer of the uterus is best treated by operation preceded by massive radiation.

A. E. MAYER, M.D.

Peterson R. A. Review of 2000 Patients Recently Registered in the Gynecological Clinic of the University of Michigan Hospital with Special Reference to Abnormal Bleeding. *B. J. G. & J.* 97, 64.

Practically one fourth of the 2000 women recently examined in the Gynecological Clinic of the University of Michigan Hospital had excessive uterine bleeding.

In the 3 patients all types of excessive flow occurred—menorrhagia, metrorrhagia, combination of the two and postmenopausal bleeding.

The hospital patients were divided into the following groups in accordance with their clinical histories and the condition with which the bleeding was associated.

| | A | P | T |
|------------------|----|----|---|
| Pregnancy | 5 | 7 | |
| Malignant | 64 | 90 | |
| Inflammatory | | | |
| py | 3 | 2 | |
| non-inflammatory | | 39 | |
| Malignant | 4 | 3 | |
| Malignant | 4 | 49 | |
| | 3 | | |

Unsuspected complete abortion, cervical malignancy, the menopause, and approach of menopause.

Malposition of the uterus, laceration of the cervix, the result of ectropion, erosion and erosion of the cervix are frequent causes of increased uterine flow.

These conditions are more frequent than formerly because of ill advised radical obstetrical procedure.

Inflammatory condition of the uterus and adnexa increased uterine flow in only a small proportion of cases (10 per cent).

Hyperaemia of the ovarian tissue has a role in increased bleeding.

Treatment should never be directed toward the interior of the uterus during the acute or chronic stage of an infection.

Nonmalignant pelvic growths are the most frequent cause of increased uterine flow.

The position, not the size of a benign growth in the uterus determines the amount of the increased flow.

Malignant uterine growths give rise to early and profuse uterine flow.

In every case of postmenopausal bleeding uterine cancer should be suspected. Microscopic examination of curettage in almost all cases of increased uterine bleeding is necessary if carcinoma is to be detected in its early stages.

Almost one fourth of cancer of the cervix occurs in women under forty years of age.

A study of the histories of patients with uterine cancer shows that they delayed diagnosis and treatment partly because of the part of the patient the member of the medical profession are all patients responsible since they fail through lack of knowledge or carelessness to detect their patient's progress.

With few exceptions every patient with abnormal uterine bleeding can be cured by a careful diagnosis made and if appropriate treatment is instituted.

GEORGE W. PHELPS, M.D.

Koenig R. T. Uddermost Frequency and Practical Importance of Menstruation Overcoming a Long Interval and in Infrequent Quantity. (Uddermost frequency and in infrequent quantity). *B. J. G. & J.* 97, 89.

Koenig states that hypomenorrhea may be due to hypofunction of the ovaries but that does not exclude the possibility that it may cause disturbance in the secondary function of the ovary. This theory is simple and better supported by the results of treatment than the theory of a disturbance of the ovary from other gland of internal secretion. Another theory which applies to many cases is that a decrease in the metabolism of the function of the vascular gland is responsible for the menstrual disturbances and disturbance in other organs.

It is noted frequently that women with hypomenorrhea suffer from nervous depression and depression of the nervous system. Neither the hypofunction of the ovary nor the disturbance of the secondary function of the ovary is a sufficient cause of the disturbance. The disturbance can be due to the symptom as well as the result of the disturbance. The disturbance of the secondary function of the ovary has a cleansing action and any disturbance of this phenomenon has an unfavorable effect.

Of 4860 women whose cases were reviewed by Koenig, 432 suffered from hypomenorrhea and of

the latter 54 were amenorrhœic and 234 were oligomenorrhœic (irregular menstruation at intervals of from five weeks to three months) and 144 were oligomenorrhœic. Koenig was therefore unable to confirm the observation of Aschner and Latzko that 10 per cent of all patients suffer from infrequent or scanty menstruation. Four hundred and one of his patients had a tendency toward inflammation of the bladder, kidneys and internal and external genital organs. 394 had migraine and menopausal symptoms, 78 arthritic disturbances, 86 skin diseases, 64 goiter and 12 psychic disturbances. Koenig obtained good results from emmenagogues, sweating diuretics, etc.

ELLNER (G)

Steinhardt B. The Artificial Menopause (Ein Beitrag zur Frage der kuenstlichen Menopause). *Ztsch f G b u r i s h u u G y n a e k* 9 7 x c i 367

The circulatory conditions and symptoms of the artificial menopause occurring in women castrated by the roentgen rays or operative removal of the uterus and ovaries or of the uterus alone were studied in 269 cases.

Of fifty-two women castrated by the roentgen rays up to a year previous to the examination, the majority of whom were over forty years of age, castration symptoms were completely absent or only slight in 46 per cent, but in 54 per cent were more marked and at times quite distressing. Psychic disturbances and obesity were not observed. A slight increase in the blood pressure was noted in four instances. In one-fourth of the women the blood pressure was increased before the irradiation, but did not increase further after the treatment. Arterial hypertension is therefore not a sequela of castration. Moderate fluctuations in the blood pressure were noted in 21 per cent of the cases.

Of fifty-two cases in which the irradiation had been done quite some time previously, the symptoms of castration were slight in 23 per cent, but in 29 per cent had been long continued since at the time of their occurrence suitable treatment could not be given.

The blood pressures of the irradiated women showed no increase over those of non-irradiated women of the same age, and it was impossible to determine any parallelism between the increase in the blood pressure and the severity of the castration symptoms.

In thirty-nine women who were subjected to hysterectomy it was found that excellent results were obtained in the fifth decade of life. Younger women had more or less pronounced symptoms which often first appeared after from six to eighteen months. One hundred and thirteen women subjected to total extirpation of the uterus and ovaries were studied. Of those who were over forty years old, 4 per cent were absolutely free from symptoms and an almost equal number had symptoms for only a few months. In over 30 per cent of the cases, more severe and very marked castration symptoms were noted for some time.

The fact that the castration symptoms often do not develop until several months after the surgical or roentgen castration supports the assumption that as the result of the loss of ovarian activity the tonus of the sympathetic nerves slowly increases. It is possible also that other endocrine glands take the place of the ovaries for a while. Hypertonus was never observed as the result of operation.

Of twenty-three women between thirty and forty years of age, 14 per cent were free from symptoms and about 25 per cent showed only slight symptoms. The remainder complained of more or less severe symptoms. Exceptionally severe symptoms occurred in five cases, but even in these no effect upon the blood pressure values was demonstrable.

With regard to the question of the blood pressure due to myomata, 90 women with such tumors and 100 women of corresponding ages who were free from myomata were examined. Of the former only an inconsiderable proportion showed an increased blood pressure. Three young women with primary amenorrhœa were entirely free from symptoms.

On the basis of the findings of this comparison the author discusses in detail the theories of Aschner. In the main he rejects them. Truly serious sequelae of castration were never observed. The fact that among thirty-five cases the first castration symptoms appeared within the first two weeks in 35 per cent, the fact that occasionally such disturbances appeared only after from eight to nine months, and the fact that after temporary castration the castration symptoms often disappeared several weeks before the recurrence of ovarian activity, speak distinctly against the theory held by Aschner. Aschner's faulty statistics may be explained by the fact that women without symptoms do not consult physicians.

Castration symptoms are often very favorably affected by weak irradiation of the pituitary region. In the few cases that do not respond to this treatment, weak irradiation of the thyroid gland is beneficial. Venesection is indicated only in the rare cases of failure of both of these measures. The author agrees with Aschner that in the treatment of gynecological conditions the measures used should be as conservative of organs and function as possible. Nevertheless, there are many cases of climacteric hemorrhages and bilateral adnexal tumors in which roentgen treatment or total extirpation is the procedure of choice.

WINTER (G)

Simpson J A. Peritoneal Endometriosis Due to the Menstrual Dissemination of Endometrial Tissue into the Peritoneal Cavity. *Am J Obst G Cy* 19 7 xi 422

Menstrual blood escapes into the peritoneal cavity from (1) endometrial cysts or cavities of the ovary and possibly other pelvic structures which have ruptured or perforated, (2) menstruating endometrial tissue growing on the surface of the ovary and other pelvic structures, (3) the uterine cavity in a back flow through the tubes, and (4) menstruating tubal mucosa.

Irrespective of its source menstrual blood at times contains bits of endometrial tissue set free by menstruation. Endometrial tissue is seminated by menstruation is sometimes alive and will continue to grow if it is transferred to situations in which its growth is possible. The peritoneum and surface of the ovary are suited to the growth of endometrial tissue.

The lesions of peritoneal endometritis often occur in situations and under conditions indicating that at least suggesting their origin from menstrual blood escaping from the uterine cavity.

The local reaction of the peritoneum to the endometrial tissue in peritoneal endometritis is similar to the local reaction of the peritoneum to cancer and peritoneal carcinosis.

I. L. C. R. M. D.

Curtis A. H. Indications for Surgical Intervention in Pelvic Lesions of Infectious Origin

Curtis emphasizes the importance of a search for infection of the duct system of the peritoneum. The results of the search for infection have been fully cured. The healing of the infection is the result of adequate drainage of the abscess. All methods of treatment are in vogue. The cautery is used infrequently to prevent secondary infection and late stenosis.

Chronic endometritis due to infection is rare; it occurs only after repeated instrumentation. The author therefore advises that hysterectomy after curettage be performed immediately or deferred until the inflammatory reaction subsides.

Gonorrheal inflammation of the adnexa is a self-limited disease. A bacteriologic study of 200 pairs of infected tubes failed to reveal the organism 6 weeks after the subsidence of the fever and leucocytosis. The treatment is conservative and highly successful if exposure to reinfection is avoided. In the author's cases operation is resorted to in less than 5 per cent of the cases and is done chiefly to relieve symptoms due to adhesions or prolonged bleeding incidental to inflammation of the ovaries. In contrast to the adhesions found in streptococcal infections the gonorrheal are easily separated. Radaers should be covered with omental grafts. The ovaries should be conserved if possible.

Streptococcal infections of the tubes require a more liberal treatment. Since streptococci often remain viable in the tube for 10 years, operation should be deferred for at least that length of time. As the tubal and ovarian damage is more extensive and adhesions are more dense in streptococcal than gonococcal salpingitis, more radical peroperative measures are necessary for the relief of the residual symptoms of infection due to streptococci.

S. MULLER, A. W. L. F. M. D.

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Rissmann P. The Theory of an Icterus of Pregnancy and Operative Investigation (Operative Klarstellung, oder Annahme eines Schwan-erschaffts Icterus) *Zeitschrift für Chirurgie* 1927 h 2051

Icterus occurring in pregnancy is too often attributed to the pregnancy itself. Interruption of the pregnancy in cases of icterus is incorrect treatment. More often surgical intervention is indicated. Jaundiced pregnant women bear operation well and the fetus can withstand jaundice for a long period.

Rissmann reports a case of jaundice with severe abdominal colic in a para II twenty seven years of age. In this case a characteristic abdominal rigidity led to puncture of the cul de sac of Douglas. The puncture yielded a greenish yellow fluid from which bacillus paratyphosus was cultured. Later the same organism was found in the blood.

At operation all of the organs of the abdominal cavity were found to be covered by a greenish yellow secretion. The patient recovered and five months later gave birth to a full term infant.

Also cited is the case of a pregnant woman with icterus of four months duration in which a gall stone was removed from the papilla of Vater and two and a half months later a full term infant was born.

It has not yet been definitely established that pregnancy causes an idiopathic icterus. According to the internists the toxic and infectious traumata which cause icterus come from the bowel contents. The pancreas also may be the source of attacks of pain and jaundice. The pancreas seems to be quite frequently affected in pregnancy. The author reports the case of a twenty four year old woman in the third month of pregnancy who was admitted to the hospital with a history of apathy, vomiting of four days duration and marked icterus. The urine showed acetone, bilirubin, albumin and bivalen casts. After the daily administration of 60 to 80 units of insulin and 1 liter of 4 per cent glucose solution by proctoclysis the acetone disappeared from the urine in two days, the icterus disappeared from the sclera in three days and the patient was discharged cured after eighteen days.

In the author's opinion the term recurring icterus of pregnancy should be dropped from obstetrical literature since thus far no proved case has been observed.

WORTSMAN (Z)

Schumann E. A. Observations upon the Coexistence of Carcinoma of the Fundus Uteri and Pregnancy. *Am J Obst & Gynec* 1927 xiv 573

The patient whose case is reported complained of uterine bleeding and backache. She had had ten normal labors and no miscarriages. Her youngest child was two years of age. Her last menstrual pe-

riod had begun twenty days before her admission to the hospital and had continued intermittently ever since alternating with a thin serous discharge. She had some pain in the back which did not radiate and pain also in the lower abdomen. The vaginal outlet was multiparous, the perineum relaxed, the cervix hard dense and without laceration and the uterus large, boggy, movable and forward in good position. A gentle curettage was performed and ten days later a panhysterectomy was done.

When the uterus was sectioned it was found to contain a normal two and one half months embryo. The sac was unruptured. Just under the lower border of the sac there was a grayish necrotic area about 6 cm in diameter which was limited to the mucosa and somewhat circumscribed. This area did not extend under the placenta and was not elevated above the surface nor especially vascular. It was at all points at least 3 cm above the interfoetal os and had no connection with the latter.

The pathological diagnosis was adenocarcinoma. A critical examination of many sections revealed certain characteristics which were peculiar to the growth. There were present a normal decidua, a normal placenta and a fetus. The stroma reaction was pronounced with many large decidual cells and cell islets. The glands were reduplicated showing marked hyperplasia but throughout there was a breaking through of the limiting membrane with massing of the epithelial cells outside the confines of the glands which formed the typical rain worm like convolutions and markedly irregular mitotic figures. The tumor was entirely extraplacental which is usually not true of chorioepithelioma and there was no evidence of a second placenta from a twin pregnancy.

E. L. CORNELL M.D.

Ikeda K. The Etiology and Pathogenesis of the Leucocytic Infiltration of the Human Placenta (Ueber Aetiologie und Pathogenese der Leukocyteninfiltration in der menschlichen Placenta). *Beitr path Anat u allg Path* 1927 lxxiii 16

In the first part of this article the author discusses the localization and causes of leucocytic diapedesis in the placenta. In his study of the condition he examined fifty two placentae without any special selection of cases. At the site of insertion of the umbilical cord and at the middle and marginal portions of the placenta the oxidase test of Graeff was carried out and hematoxylin eosine and cresyl violet stained sections were made. As a result of his investigations the author draws the following conclusions:

1. Diapedesis of leucocytes at the juncture of the umbilical cord and placenta as well as in the chorionic membrane of the placenta does not depend upon the

duration of labor nor upon the strength of the contractions of the uterine musculature

2 Transmigration of leucocytes into the placenta occurs very frequently in stillbirths and forceps deliveries

3 It takes place also in pregnancies running a normal course

4 It is found much more often at the junction of the umbilical cord and placenta than at a distance from it in the chorionic membrane

5 It is not specific for syphilis

The second part of the article deals with the nervous or chemical causes of leucocytic diapidesis and the nervous sensitivity of the placental blood vessel. Perfusion experiments on human placental vessels the mechanism of which is described in detail and histological studies on the placental vessels were carried out. From a critical review of his findings the author concludes that the fetal blood vessels of the placenta possess no nerve elements and that the diapidesis of leucocytes takes place without any nervous influence and is a reaction to a chemico-physical stimulation in the sense of Graeff.

In the third part of the article Ikeda reports on experiments carried out on animal to determine whether the blood vessels of the chorion and the placenta possess nerve fibers and whether leucocytic infiltration of the placenta can be produced artificially.

The experimental animals were guinea pigs in a late stage of pregnancy. The experiments were conducted with emulsions of bacteria as well as dilute acid and alkaline solutions.

The experiments with the bacterial emulsions showed that transmigration of leucocytes in the sub-chorionic area and at the junction of the umbilical cord and placenta may be produced artificially by the injection of a bacterial emulsion into the amniotic fluid and that a marked accumulation of leucocytes occurs at the site where the bacteria become localized.

The other experiments showed that after the injection of dilute solutions of alkali or acid into the amniotic fluid in the case of young fetuses the maternal leucocytes become deposited to ward the amniotic fluid in the peripheral intervillous spaces and appear to a varying degree in the wall of the chorion. In the cases of older fetuses there is also a transmigration of leucocytes from the fetal blood vessels at the junction of the umbilical cord and placenta.

The author concludes that in cases in which syphilitic and other infection can be excluded the leucocytic infiltration in the chorion is frequently encountered is to be attributed to a physicochemical change in the amniotic fluid. It is impossible to say to what extent this is dependent upon nutrition or other factors.

SCHEMME (G)

Davidson H S Therapeutic Abortion with Specie Reference to Methods of Induction Ed
 1917 M J 97 1 C D b gh Ob t So 85

Davidson considers that hyperemesis is the most important indication for the induction of abortion

because it has been the chief indication in the greatest number of cases both in his hospital practice and his private work. The rule by which he is guided in this connection is that if either the temperature or the pulse is over 100 for forty-eight hours the pregnancy is to be terminated. Jaundice is the other clinical sign of importance in judging the severity of the condition.

Mitral stenosis is also regarded as an indication for abortion in certain cases. At term caesarean section with sterilization of the patient is performed.

Other indications given are active phthisis, certain renal conditions, with albuminuria, hydatid mole, erythremia, and certain mental afflictions.

The method employed are divided into the slow and the rapid method. The former are used when there is no urgency, and the latter when the patient's life is endangered. In the slow method dilatation and ligation of the uterus with gauze either with or without destruction of the ovum by means of polyethylene is the simplest procedure. Tents are occasionally used.

Of the rapid methods the author favors vaginal hysterectomy and occasionally abdominal hysterectomy. The other rapid method mentioned is abdominal hysterectomy. This is indicated when sterilization is to be performed after the cessation of development of fibroid when the patient is practically certain to abort and when a hydatid mole is present.

H VERNON SMITH M D

McQueen J D Hemorrhage in Pregnancy
 Can M J 97 85

McQueen discusses three types of bleeding in pregnancy, namely, the bleeding associated with abortion, accidental hæmorrhage, and the bleeding due to placenta prævia.

Abortion is discussed only briefly, with emphasis on the importance of a reference to the patient early in pregnancy and the limitation of vaginal examination.

Of the occasional cases of pregnancy admitted to the Winnipeg General Hospital a diagnosis of accidental hæmorrhage was made in nine. In this group there were no maternal deaths. The physical and clinical pictures and the theories of a crisis in the condition to toxæmia, torsion of the uterus, functional disturbances of the uteroplacental circulation and trauma are briefly reviewed.

In the treatment the aim should be to combat shock, empty the uterus and stop the hæmorrhage by the administration of morphine, the application of a tight binder, the intravenous injection of fluid and transfusion. In severe cases caesarean section with or without hysterectomy may be necessary. This should always be preceded by blood transfusion. Tamponade and version are not indicated.

Placenta prævia may be classified as complete, incomplete, and implantation. Its presence is suggested by hæmorrhage occurring in the last three months of pregnancy. For a positive diagnosis a vaginal examination is necessary.

The treatment must be carried out in a hospital and must depend upon the general condition of the patient previous interference the condition of the cervix the period of gestation and the situation of the placenta. Rapid manual or mechanical delivery of the cervix and rapid delivery of the child by forceps the administration of pituitrin or breech extraction are to be condemned.

In the 2 000 cases of pregnancy referred to placenta prævia occurred sixteen times. One patient with this condition died a few minutes after her admission to the hospital. The fifteen others survived and three of them gave birth to living infants. In nine cases the treatment consisted in tamponade and version. The author agrees with Watson and Miller that conservative treatment or caesarean section is the procedure of choice.

DONALD G. TOLLEFSON M.D.

Cruikshank J. N. Acute Endocarditis in Pregnancy and the Puerperium. Notes on Eleven Autopsies. *Glasgow M J* 1927 c 71 279

In a series of 160 consecutive postmortem examinations of women who died during pregnancy or the puerperium acute endocarditis was found in 11 cases. In 5 cases the endocarditis was of the ulcerative type in 6 cases of the simple type.

In 2 cases it was simply the terminal event in some other illness in 4 it was secondary to infection elsewhere in 2 it was of the rheumatic type and in 2 it developed at the end of a period of cardiac failure due to a previous attack of endocarditis.

Puerperal sepsis appeared to be the direct cause of the acute endocarditis in only 3 cases.

Infarctions were found in 7 of the 11 cases. Infarction of the brain was present in 4 cases of the lung in 3 of the kidney in 3 and of the spleen in 1 case.

Splenic enlargement was present in 8 cases but was extreme in none.

Fever amounting to hyperpyrexia had been present in 2 cases. In 6 there was fever of moderate degree while in 3 there was little or no disturbance of temperature.

In conclusion the author states that these post mortem examinations demonstrate the importance of sepsis both uterine and extra uterine in the causation of acute endocarditis in pregnancy and the puerperium particularly when the endocardium has already been damaged.

CARL H. DAVIS M.D.

Newell F. S. The Treatment of Cardiac Complications of Pregnancy and Labor. *Boston M & S J* 1927 cxc ii 757

Newell stresses the great need for specialists in obstetrical cardiology.

Ten per cent of all women develop murmurs during pregnancy but in the vast majority of cases all signs and symptoms of cardiac impairment disappear later. In approximately 2 per cent of all pregnant women a definite cardiac lesion is present and in one half of these cases the patient's future

depends upon the care which she receives during pregnancy.

Congenital heart disease of a severe nature is comparatively rare. Mitral stenosis is the most serious lesion. Aortic lesions are less serious while uncomplicated mitral insufficiency is of almost negligible importance.

Patients with cardiac disease may be divided into three groups (1) moderately and extremely severe cardiacs (2) mild cardiacs and (3) possible cardiacs.

Those in the third group should be watched very carefully. Those in Group 2 who have had a single attack of rheumatic heart infection but in whom the cardiac muscle is but slightly affected should be carefully watched and instructed to avoid exertion. In this group repeated pregnancies are relatively safe.

Patients in Group 1 have a definite mitral stenosis or aortic lesion and heart muscle damage. It may be possible to carry a patient of this type through one or more pregnancies but cardiac invalidism may be the price paid. If the patient is seen before the fetus is viable abdominal abortion with sterilization should be performed. When the fetus is viable the patient should be carried to near term and caesarean section and sterilization then performed.

HAMILTON in discussing the paper pointed out that 95 per cent of the patients in Group 1 have mitral stenosis while only 1 or 1 1/2 per cent of all pregnant women have this lesion. Nevertheless 20 per cent of all maternal deaths at the Boston Lying In Hospital and 28 per cent of all maternal deaths in the Faulkner Hospital were derived from this group. In the first two years of the Heart Clinic there were 68 cardiacs of Group 1 with a maternal mortality of 17.7 per cent whereas during the last three years there have been 133 patients of this type with a maternal mortality of 3.8 per cent. During the same period the infant mortality was reduced from 26.5 to 10.0 per cent. This improvement was due entirely to the intelligent care given the patients by the obstetrical cardiologists.

GEORGE W. PHILLAN M.D.

LABOR AND ITS COMPLICATIONS

Gordon C. A. Respiratory Emphysema in Labor. *Am J Obst & Gyn* 1927 iv 633

The occurrence of air in the subcutaneous tissues is an unusual and interesting complication of labor—a phenomenon probably occurring more often than has been recorded in the literature and of interest because of its sudden onset and our lack of positive knowledge regarding its etiology and pathology.

The author reports two cases in primiparae. In one case the emphysema occurred in the first stage of labor and in the other in the second stage.

I. I. COPPELL M.D.

Mosher C. G. Caesarean Section Indication and Limitations. *S G Gynec & Obst* 1927 xiv 65

The main points made in this article may be summarized as follows:

1 A Baudelocque diameter of less than 17 cm and a true conjugate of 6 cm or a tumor blocking the outlet is a positive indication for cesarean section

Seventy five per cent of all pelvic contractions allow delivery by the natural passages

3 The classical conservative or Saenger operation done when indicated by electrical stimulation is comparatively safe. The maternal mortality should not exceed 1 per cent

4 The maternal mortality is increased by rupture of the membrane attempts at forceps delivery the induction of labor vesicotomy or the frequent amniotomies per age are precluded by the electrical stimulation. After any of these craniotomies should be selected in the interest of the mother's life. If section is done after a potential infection it must be a Porro or a low trapezoidal operation

5 In eclampsia the indication for cesarean section is limited to the cases of primipara with a rigid long unyielding cervix who show no improvement following six hours of conservative treatment

6 Placenta praevia is most generally an indication for the cesarean section in laceration the exception being severe bleeding with no dilatation in a praevia centralis

7 The fetal mortality is to be reckoned according to whether the section is demanded by pelvic dystocia or by maternal diabetes. Under the former condition a minimal death rate for the infant may be predicted whereas under the latter condition the risk to the child from hemorrhage toxemia or prematurity is necessarily vastly augmented

Finally the dictum for cesarean section when the head has reached uterine cavity will be that it depends on prenatal cause and the obstetrical conscience

C H D S M D

Rucker M P The Treatment of Contracted Pelvis According to Ruggles
Dybol with Adrenalin J Obst & Gy 97 69

The author reports to cases in which a contraction ring causing dystocia is relaxed by a hypodermic injection of 5 minimals of 1:100 solution of adrenalin. In most cases such an action causes a cessation of uterine contraction that can be shown graphically as a relaxation of Bandl's ring that can be felt with the hand. The uterus is in no case bled. Rucker notes a motor effect. The cases in which the effect was not clear on how no effect at all. This result is probably explained by the occurrence at the point of injection of a vasoconstriction which delayed the absorption

G L C E L M D

Schumacher P The Mechanism of Labor in the Contracted Pelvis IV The Transversely Contracted Pelvis (D Gb t m b m b e m g B k IV D q e e g t e B k) A h f G j k 97 59

This article is one of a series on the mechanism of labor in the contracted pelvis reports upon the per-

mental investigations regarding the mechanism of labor in the transversely contracted pelvis

When the transverse contraction is slight the infant's head enters the pelvis according to the mechanism of the normal pelvis. The walls of the transversely contracted pelvis which converged downward exert an influence upon the mechanism of labor only when the degree and the form of the increasing contraction of the pelvis interfere with the normal changes in presentation and position of the descending head. The fetal head may be turned with it against suture in the longitudinal diameter before it is turned by the knee of the birth canal

When the spines of the ischium are very prominent the head may encounter additional resistance at the level but in most cases this can be overcome with the aid of the sagittal synclitism. The development of this sagittal synclitism is explained according to the mechanics of labor and is shown in two illustrations

Attention is called to the importance of the mechanics of labor of the not uncommon striking mobility of the articulations of the kyphotic funnel pelvis. When the fetal head enters the pelvic inlet

the occiput directed rather posteriorly it may still rotate with its occiput anteriorly in the upper portion of the pelvic cavity if the transverse contraction is not marked. But the farther the head descends into the pelvis the more difficult this becomes until finally it is entirely impossible. The head is then prevented by the more closely approaching pelvic wall from making any change in position. In such cases labor takes place according to the mechanism of a frontal or an occiput posterior presentation which endangers the perineum to an even greater extent than the occiput anterior presentation because the pubic arch of the transversely contracted pelvis is usually so narrow and pointed that even the less bulky sigmoid pelvis has no room in it and therefore the bulky occiput exerts great force against the soft parts of the pelvic floor

More marked transverse contraction may affect the presentation and position of the advancing fetal head even in the pelvic inlet. It may turn the long front occipital diameter to the longitudinal diameter in accordance with the slip of resistance of the pelvic inlet

SCHEM C X (G)

F J F C Clinic ISgn of Fetal Distress During Labor J Obst & Gy 97 659

The fetal heart sounds since they are transmitted directly from the fetal heart are usually the first hand information as to the condition of the fetus. Careful auscultation is obligatory and should be done from early in labor until the child is born. It is especially necessary in the cases of elderly primiparae women with a questionable pelvic cases in which there are frequent strong contractions, cases in which the fetal membranes have ruptured prematurely and cases of breech presentation

A fetal heart beat remaining below 100 between pains is a sign of distress calling for extremely careful

observation and investigation or the termination of labor if this can be done with safety to the mother.

A funic souffle persistently heard usually indicates that the cord is around the neck or that there is pressure on the cord. It is therefore extremely important as it indicates possible danger to the fetus.

The appearance of meconium is not *per se* of the vital importance that some obstetricians suppose but when it is associated with slowing of the fetal heart interference is indicated.

Neither a rapid fetal heart nor a fetal heart that varies provided the variation is within the usual normal range is of serious importance in the majority of cases.

Occasionally however a child may be born dead without previous warning from the fetal heart of the impending asphyxia even when careful observation has been continued throughout labor. Such deaths are usually due to some form of cerebral injury involving the respiratory center.

Syphilis has not been found to be a factor in influencing the rate of the fetal heart during labor.

A small pelvis early rupture of the membranes and frequent strong uterine contractions have a marked effect in slowing the fetal heart.

Prolongation of the first stage of labor influences the heart rate of the fetus very little but prolongation of the second stage has a more marked effect.

In the discussion DAVIS stated that the paper did not sufficiently stress the importance of irregularity of the fetal heart beat.

PEIFFER did not agree that the meconium is to be disregarded in cephalic presentation. He is of the opinion that the infant is at least partially asphyxiated in such cases. E. L. CORNELL M.D.

PUERPERIUM AND ITS COMPLICATIONS

Findley P. Puerperal Inversion of the Uterus
11 J S g 1927 111 452

Two cases of complete puerperal inversion of the uterus were operated upon by the author. In both the condition occurred in a primipara and followed forcible expression of the placenta. One patient died from shock and hemorrhage at operation but the other who was operated upon on the twelfth day of the puerperium recovered.

Findley states that partial inversion of the puerperal uterus is of common occurrence often unrecognized and self rectifying.

Complete inversion on the other hand is one of the rarest of obstetrical mishaps. In 1932 164 labors it occurred only 17 times or once in 113 063 labors. It is most common in home deliveries.

The forcible Crede maneuver and traction on the cord produce inversion only when the fundus is relaxed and the lower uterine segment is flaccid.

An unrecognized partial inversion may be made complete by an increase in the intra abdominal pressure due to coughing or straining at stool.

Approximately one third of all cases of uterine inversion pass into the chronic stage thirty or more

days after labor. In two thirds of all cases the placenta is adherent. Inversion may occur without collapse or hemorrhage. The mortality ranges from 14 to 26 per cent.

In the treatment it is of importance first to control the hemorrhage and relieve the shock. A blanched patient is a poor surgical risk. When efforts to control the hemorrhage and relieve the shock are unsuccessful the attempt should be made to replace the fundus. If this procedure fails the fundus should be amputated. An infected uterus should be removed. DONALD G. TOLLESON M.D.

MISCELLANEOUS

Kosmak G. W. Fundamental Training for Obstetrical Nurses. Surg Gynec & Obst 9 11 665

In proposing a condensed syllabus of theoretical and practical teaching Kosmak says The set period of thirty hours as a minimum has been adhered to although neither the lectures nor the demonstrations may take up the full number. This will afford time for review lectures and for quizzes on the practical demonstrations. The textbooks on obstetrical nursing which have been thus far recommended should be either supplemented by simpler editions or subjected to revision in which the essentials treated in the lectures are noted and stressed. Moreover it is of great importance that medical men lecturing to nurses on obstetrics be thoroughly instructed as to the character and purpose of their lectures that such lectures be given by the attending staff preferably the seniors rather than by the resident internes.

Anatomy as related to obstetrics. Bony pelvis—general structure integral part of birth canal in fluence of labor. Organs of generation—uterus ovaries tubes vagina vulva. Relations of vagina rectum and bladder. Breasts. Elementary physiology.

Physiology of reproduction and pregnancy. Menstrual life puberty to menopause. Embryonic development impregnated ovum to full term fetus. Fetal membranes liquor amni placenta cord. Relation of mother to fetus maternal impressions.

Necessity of prenatal care. Hygiene of pregnancy diet clothing exercise.

Pathology of pregnancy. Nausea and vomiting—degree treatment. Interruptions of pregnancy abortion and premature labor accidental hemorrhage placenta praevia etc. Intercurrent diseases heart lungs kidneys exanthemata grippa.

Toxemia early and late. Causes variety treatment.

Labor. General features stages pains mechanism presentation progress delivery of baby and placenta. Analgesia anesthetics.

Puerperal period. Involution of uterus lochia care of breasts subinvolution pyelitis phlebitis puerperal mania sepsis.

Complications Prolapsed cord or extremity hemorrhage precipitate labor Operations—forceps version cesarean section induction of labor perineal and cervical repair

Verbo n fant Care feeding intercurrent diseases premature infants

Qu

Practi al d onst t is Each of these should be extended through two hours and be followed by a quiz

- 1 Anatomy 2 Hygiene of normal pregnancy
- 3 Care of abnormal pregnancy 4 Preparations for labor normal
- 5 Preparations for labor abnormal
- 6 Puerperal case in normal case 7 Care of puerperium abnormal
- 8 Complications of pregnancy
- 9 Care of toxemias 10 Care of newborn

C. R. H. D. S. M. D.

Yamamoto T. The Effects of the Roentgen Ray on the Development of the Embryo of the Human Fetus. *J. J. Obst. Gynec.*

In these papers reported both x-ray irradiation (one sixth of the lethal dose) and strong irradiation (four thirds of the lethal dose) were employed. Fertilization in the hen was used.

When the eggs were exposed to either the weak or the strong irradiation prior to incubation no influence was exerted upon the development of the

embryo. The weaker irradiation failed to exert an influence also during the early period of incubation.

In a study of the effect on eggs at different stages of development the author employed a full dose of rays of medium wave length and a full dose of rays of short wave length. He found the injurious effect to be greatest when the irradiation was given just after the thirty-second hour of incubation. After the two hundred and forty-first hour no demonstrable injury was produced. When rays of the longer wavelengths were used the resulting anomalies were confined to the lower limb and in general the injurious effects were somewhat less. However the results indicate that the amount of damage was determined by the degree of development of the embryo rather than by the character of the rays. The fractional application of the same dose produced less markedly injurious effects.

Finally the chickens which stood the influence of irradiation and which hatched naturally were reared and the influence of irradiation on their reproductive power and the incubation of eggs fertilized or laid by them was studied. These chickens began to lay eggs in the seventh month after incubation as did the controls and showed no abnormalities in the development of secondary sexual characteristics. The incubation of their eggs was also normal.

CHARLES H. HEACOCK, M.D.

GENITO-URINARY SURGERY

ADRENAL KIDNEY AND URETER

Brofeldt S. A. The Etiology and Clinical Aspects of Perinephritic Abscesses (Zur Ätiologie und Klinik der perinephritischen Abszesse) 1. ed. Soc. Fennica Duodecim 1917 VIII No. 10

In cases of chronic suppurative nephritis inflammatory processes of a hyperplastic nature are often found in the renal capsule and the surrounding fatty capsule at operation or autopsy. In comparison with the great frequency of various kinds of suppurative nephritis fully developed inflammations of a suppurative nature in the region of the kidney are relatively rare. With regard to the etiology and clinical picture of such inflammations there are still many unsolved problems.

As these inflammatory processes differ widely in their etiology, being alike only in their localization near the kidney, there has been no agreement in the nomenclature applied to them. Rayer called them simply perinephritic abscesses, but Gerota finding that the retroperitoneal tissue surrounding the kidney is separated from the rest of the retroperitoneal tissue by the renal fascia, attempted to give special names to inflammatory processes within and outside of the renal fascia. Kuester and others designated inflammation of the fatty capsule paranephritis. Israel, who reserved the term perinephritis for inflammation of the fibrous capsule, applied the term epinephritis to suppurative inflammations of the fatty capsule but found no followers. Rehn and nearly all American urologists use the term perinephritis only for inflammation of the renal fat and the term paranephritis for inflammation of the pararenal adipose tissue lying outside the renal fascia. The author regards the latter nomenclature as the most practical although it is not always possible to differentiate the various forms of abscesses clinically and therefore inflammations localized both within and outside of the renal fat are called perinephritic abscesses.

The author's material consisted of forty seven cases of perinephritic abscess from the University Surgical Clinic of Helsingfors. Thirty of the patients were males. According to statistics perinephritic abscesses occur about twice as frequently in males as in females. The majority of the patients whose cases are reviewed were between twenty and forty years of age, but some of them were under twenty years and others under ten years of age. Two were children two years old. The abscess developed on the right side in twenty four cases, on the left side in twenty two cases and on both sides in one case. According to the cases reported in the literature the right and left sides are affected with equal frequency.

PRIMARY PERINEPHRITIS

Suppurative inflammatory processes may develop in the fatty capsule either primarily or secondarily from infectious processes in near by organs. The primary type include also suppurations produced by gunshot or stab wounds and dull force.

The part played by dull force in the etiology of perinephritic suppurations has been variously estimated. Earlier investigators regarded it as of great importance and attributed to it the more frequent occurrence of such suppurations in males. Experience has shown that the bacteria which often reach the blood stream in surgical infections seem to cause suppurative processes only when they reach injured tissues. This observation provides a certain basis for the theory that the infection of the fatty capsule occurs directly from the blood stream without participation of the kidney. On the other hand those who consider infection from the kidney to be the rule or at least the more common occurrence are able to explain the development of perinephritic suppuration in the absence of trauma. In the cases reviewed there were only four in which trauma could be blamed. In certain cases trauma may favor the rupture of a renal focus into the fatty capsule but primary suppurations of the fatty capsule due to an injury seem to be extremely rare if they occur at all.

A primary metastatic origin of abscesses in the fatty capsule without a previous trauma has also been suggested as possible but the experiments upon which this theory was based were carried out on rabbits which do not have a distinct fatty capsule and abscesses were formed not only in the cortical layer but also in the fibrous capsule. Moreover the fibrous capsule in rabbits differs in its structure and vascular system from the fibrous capsule in man.

At operation on perinephritic abscesses the surface of the kidney is occasionally found intact but this does not necessarily mean that the suppuration was primary in the fatty capsule the renal focus may have become healed before the operation. In general it is contrary to all surgical experience to assume that a primary perinephritis can develop by way of the blood stream. A metastatic abscess is more apt to be formed in the sensitive renal tissue than in the fatty capsule the resistance of which is much like that of the great omentum.

It has been suggested also that the fatty capsule of the kidney may become infected by way of the lymph stream. According to Miller infection of the fatty capsule by way of the lymph vessels in inflammations of the bladder and genitalia is theoretically possible since not only the bladder and the region of the genital organs but also the lymph vessels of the kidneys and their capsules communicate with the lateral lumbar lymph glands. The

perinephritic suppurations occurring after labor have also been attributed to lymphogenous infection. According to Cumston the development of infection of the fatty capsule in the first weeks after delivery indicates an infection by the lymphatic route but experience has shown that it is typical of a hematogenous infection. Even if it is admitted that infection may occasionally ascend toward the lateral lymph glands the latter form a strong barrier which infection can rarely overcome. On the other hand it must not be forgotten that during or after labor the infecting agents may easily reach the blood stream by way of the large wound surfaces.

According to Unter the renal fatty capsule may become infected by way of the lymph stream from inflammations of the abdominal viscera. According to the nearest notions of Franke at least a slight network of lymph vessels leads from the colon to the renal capsule. However, most of the lymph vessels end in the mesal lumbar gland which have no communication with the kidneys.

Finally it has been claimed that an infection may reach the fatty capsule from the thoracic viscera by way of the lymph stream but in the author's opinion the reverse is more likely.

Brosfeldt concludes that primary suppurations of the fatty capsule occur by way of either the blood or the lymph stream are rare and that in not a single case of the recorded was such a possibility likely.

SECONDARY PERINEPHRITIS

Among the secondary perinephritic abscesses are also included all suppurations of the fatty capsule which arise from infections spread in the organs and tissue surrounding the renal capsule. In such cases the infectious process first produces a retroperitoneal phlegmon and then latter ruptures into the fatty capsule. As the symptoms of the primary inflammatory process often limit the clinical picture such cases are excluded from this discussion.

The part played by the kidneys in the etiology of perinephritic abscesses is exceedingly important and in chronic nephritis fully recognized.

A relatively large percentage of all perinephritic abscesses are suppurations produced by chronic nephritis. In the author's material the perinephritis was due to pyonephrosis in six cases, to calculus in four cases, to tuberculosis in one case. In the literature chronic pyelonephritis is often given as a cause of perinephritic abscesses and theoretically it is possible that the secondary cortical abscesses bring it about after direct uptake of the fibrous capsule or by way of the lymph stream following permeation of the capsule. But neither in his own material nor in the literature has the author been able to find any case supporting such an assumption. Practically only the chronic form of renal suppuration which produces retention in the pelvis is a pyonephrosis can cause perinephritic abscesses. As renal stones very often cause retention or pyonephrosis they are frequently the primary factor in perinephritis.

The theory that acute hematogenous infections of the kidney are of importance in the etiology of perinephritic abscesses has lost considerable ground.

As the nature of the condition in perinephritic abscess often does not necessitate exposure and careful inspection of the kidney the point of origin of the perinephritic abscess frequently remains undetermined. Therefore the question arises as to whether it is possible to determine from the clinical symptoms alone when a perinephritic abscess has had its origin in the kidney and whether in these cases it is possible to distinguish a possible renal abscess aside from the suppuration in the fatty capsule.

According to the author's experience tenderness and tension in the lumbar region depend more upon the intensity of the renal process than upon its nature and tenderness on palpation and percussion is found also in other renal infections as well as in total abscess of the kidney. Therefore it is difficult to draw conclusions as to the etiology of the perinephritis from these findings alone.

The changes in the urine in perinephritis are frequently very light and the urine often macroscopically clear. However, on the basis of the cases recorded it may be said that on careful examination of the urine usually shows erythrocytes and leukocytes in the initial stages and later chiefly leukocytes. Albumin is also often demonstrable.

With regard to the bacteriological examination of the urine in cases of perinephritis little can be found in the literature. The urine as examined bacteriologically both microscopically and culturally in thirty-four of the author's forty-seven cases. Of the thirty-six cases of questionable etiology a bacteriological examination was made in twenty-five. Staphylococci chiefly staphylococcus aureus were found in thirteen streptococci in two a cocci resembling the paratyphoid in one diplococci in one colon bacilli in five and an anaerobic bacillus resembling the bacillus thetoides in one. The culture was sterile in only four instances. Therefore staphylococci were found in half of the cases and it is possible that in the earlier stages of the disease they would have been found more frequently. Animal experiments also have shown that especially the virulent strains of staphylococci are not apt to produce embolic metastatic cortical foci.

Histological studies of cases of renal infection lead to the same conclusions. The staphylococcus aureus predominated in the author's material but in the cases of elimination on nephritis reported by Heller in the staphylococcus albus as pre-eminently the causative agent. As the virulent staphylococcus is perhaps found most often in furuncles, carbuncles and paronychia it is easily understood why perinephritic abscesses develop in the periphallic foci. Males develop perinephritic abscesses more frequently than females probably because by reason of the occupation they are more subject to traumatic peripheral infection which provides portal of entry for the staphylococci.

In infectious nephritis in general colon bacilli have been found in from 70 to 90 per cent of the cases but these figures are evidently too high because they include also chronic renal suppurations in which as is well known colon bacilli often persist in the urinary tract after the staphylococci and streptococci have disappeared. At any rate the incidence of hæmatogenous colon bacillus nephritis appears to be greater than that of staphylococcus nephritis.

In the author's cases of perinephritis the colon bacillus was found only four times in the urine and simultaneously in both the urine and the pus in only one case. Hence there was only one case of colon bacillus perinephritis due definitely to acute hæmatogenous renal suppuration. Moreover in a review of the literature the author was unable to find a single positive case of colon bacillus perinephritis due to acute renal infection.

The author's case was probably one of colon bacillus elimination nephritis in which secondary infarction foci ruptured or reached the fatty capsule by way of the lymph stream. The abundance of leucocytes in the urine also indicated a pyelitis type of condition. The colon bacillus rarely produces typical pus foci whereas in the author's case thin pus was found in the oedematous fatty capsule. In the two other cases in which the colon bacillus appeared in the urine staphylococci were found in the urine the colon bacilli being evidently secondary invaders of the urinary tract.

The tubercle bacillus has also been regarded as a typical cause of metastatic embolic renal infection but in the literature there is no report of a case in which a typical tuberculous perinephritis was present without a pyonephrosis. Tuberculous elimination nephritis is more common than the embolic metastatic form.

Through the finding of bacteria especially of staphylococci or streptococci in the urine we may establish with certainty provided there are no chronic renal symptoms the simultaneous presence of the excitants of the infection in the blood and thus the assumption of the presence of a perinephritic abscess is considerably facilitated.

From the etiological standpoint the finding of bacteria in the urine is not unconditionally indicative of a renal abscess as experience has shown that the excitants of the infection can be cultured from the urine in many surgical infections. However they are not found by any means regularly or they appear for only a short period of time and often in only very small numbers. Although this bacterial elimination does not seem to occur through the intact kidney the renal changes may be relatively insignificant and there may be no clinical symptoms on the part of the urinary tract. However if a true infectious nephritis results its symptoms may be recognized from the urine.

It has been asserted that a sudden fall in the fever after the opening of the perinephritic abscess indicates that the infection did not have its origin

in the kidney. Nevertheless it has been observed that the opening of a renal abscess is followed relatively often by a critical fall in the fever. In two of the cases of perinephritis following pyonephrosis in the author's material the fever dropped after incision of the abscess but in seven cases it persisted for some time. A critical fall in the fever after the opening of the abscess is therefore of no etiological significance. Moreover it has been found that cortical abscesses heal rapidly so that only the complication persists and the fever falls after the disappearance of the complication. In twelve cases due primarily to an acute renal infection the critical fall in the fever indicated only how circumscribed the renal foci were in these cases. In fourteen cases the fever dropped at first but later there were short febrile periods although the pus cavities showed no symptoms of retention and the amount of suppuration did not increase with the repeated dropping of the fever. Therefore the fever resembled the type which is usually associated with infectious nephritis.

Finally the changes in the urine and the fever must be considered together in determining the point of origin of the perinephritis.

In eleven of the author's forty seven cases the condition began in association with a chronic renal infection and the etiology was clear. In most of these the diagnosis was confirmed at operation. In five of the remaining thirty six cases a renal abscess was found either at operation or autopsy. In nine cases the urine contained albumin and a relatively large number of leucocytes and bacteria either in the beginning or later and there were postoperative febrile periods. So many findings suggesting renal involvement could have been due only to an infectious nephritis. In these cases the perforation of a large abscess could not have occurred as a communication between the renal pelvis and the perirenal tissue was found at operation only once. It is more likely that in addition to embolic metastatic foci in the cortex there were also medullary foci from which the infection spread to the renal tubules either directly or by way of the lymph stream. It is possible also that in acute pyelitis the infection involving the renal cortex and producing infectious foci in that region extends to the perirenal tissue either directly or by way of the lymph stream.

In five cases the urine was macroscopically clear and the sediment showed few leucocytes erythrocytes and bacteria but the fever persisted after the operation as in the other group. The author believes that in these cases also the clinical picture was not due to bacterial elimination alone but also to embolic metastatic renal infection.

In five cases the urine contained albumin and numerous erythrocytes at first and numerous leucocytes and bacteria later but the fever dropped by crisis after the operation. The fall of the fever did not indicate the absence of a renal affection but suggested that the renal abscesses were limited to a circumscribed area. Although cystoscopy was done in only a few of these cases it indicated that

the urinary changes in these cases also in which they were relatively insignificant were not due merely to bacterial elimination.

In two cases the urine contained leucocytes but was sterile. However as considerable time has passed since the beginning of the illness the renal abscess may have healed and the bacteria may have disappeared from it.

Even in the urine of normal persons isolated leucocytes may be found but as a rule epithelial cells are present in addition. Also in febrile diseases the urine may contain a small amount of albumin, hyaline and epithelial casts, epithelial cells and isolated leucocytes.

In hematogenous embolic focal nephritis on the other hand the urine regularly contains leucocytes and erythrocytes chiefly in the beginning of the disease but in general the leucocytes are more numerous than the other elements. Bacteriuria is extremely important and rarely absent.

The author therefore concludes that in a case with relatively insignificant urinary changes it is possible to determine whether or not a renal abscess is the ultimate cause of the perinephritis not only from the quantity but also from the quality of the urinary sediment.

THE SYNDROME

The disease may begin either very acutely or insidiously. In thirty-three of the author's cases it began relatively suddenly with lumbago, pain in the lumbar region and with fever, which usually was of the intermittent type. Intermittent fevers are characteristic and followed by a severe chill which may have indicated that bacterial embolism had reached the blood stream through the renal coat.

In thirty-one cases the most noteworthy and constant symptom was pain in the lumbar region. In some cases this radiated to the urethra, the perineum, the inguinal region or the thigh. In several cases there was urinary stasis, marked urinary changes, as a rule stranguria did not last long. Every movement affecting the kidney enhanced the pain.

In fourteen cases the disease began insidiously with diffuse symptoms such as lassitude but ultimately a swelling in the lumbar region noted. As a rule however the typical signs in the lumbar region developed before the swelling had become marked.

In many cases the disease began with acute diffuse symptoms, a symptom localized in the lumbar region which persisted for several days and then ceased. Several weeks later there came a new attack and at this time the symptoms of the perinephritis were felt. The renal function evidently developed during the first attack.

After the formation of the perinephritic abscess the lumbago became continuous and in the majority of the cases a lumbar swelling appeared. When the pus localized behind the kidney or at the lower pole of the kidney the swelling was diffi-

cult to palpate. When the kidney could be palpated, it often seemed to be enlarged and suggested a renal tumor. In some of the cases nothing pathological could be found in the kidney region at first especially when the abscess lay at the upper pole. In most cases however the tumor mass was quite large extending from the border of the ribs to the iliac crest and to the umbilicus.

Typical of the condition is the restricted mobility of the kidney on respiration and on attempts to move it by palpation. In the later stages fluctuations are noted. Gradually the lumbar muscles become infiltrated and the pus perforates subcutaneously into the lumbar region or the lower part of the abdominal wall. Relatively often the extension of the process downward along the ileopsoas muscle causes flexion of the hip a day or two thereafter a resistance is noted in the iliac fossa or the inguinal region. In some cases obstipation may be present. Perforation of the pus into the peritoneal cavity is rare and usually fatal.

When the abscess is situated at the upper pole of the kidney the local symptoms are at first insignificant. The first signs of the condition in such cases are pleuritic symptoms, a dull pain and tenderness below the border of the ribs and in the hypochondrium. After the abscess has ruptured into the subphrenic space it causes other symptoms and dullness over the lower portions of the lungs and pleurisy are often found.

DIAGNOSIS

A sudden onset with fever, chill, pains in the lumbar region and relatively clear urine with few leucocytes and staphylococci are characteristic of embolic metastatic abscess if the enlarged but a diagnosis of perinephritic abscess is rendered positive only by positive puncture findings, positive roentgen ray findings or a swelling in the region of the kidney.

TREATMENT

It generally agreed that suppurative focal perinephritis must be treated surgically. Although a cure is sometimes obtained by conservative treatment surgery gives better results. The results of surgery are best when the operation is performed early. However operation is indicated only when the true symptoms of perinephritic abscess are noted.

In the author's cases the usual blue lumbar cystoscopy was used. The surface of the kidney is palpated and fluctuating areas are broken into with the finger. In all of the author's thirty-one cases which were operated upon only one, namely, was dead at first and nephrectomy was deemed necessary. It was done at a second stage. The only exceptions were cases of pyonephrosis in which the blood count was treated according to the indications.

When the abscess had gravitated to the inguinal region a second incision in the lumbar region was necessary.

The after-treatment of the abscess cavity as carried out according to the usual surgical principles.

The postoperative complications were relatively slight. The fever dropped by crisis in only twelve cases, in the rest it dropped by lysis or lasted a few days longer and then dropped. In several cases the febrile picture typical of infectious nephritis persisted without symptoms of retention.

There were no serious postoperative pulmonary complications. One patient developed erysipelas and another a fecal fistula. In one case a nephrectomy was followed by a large fecal fistula. The abscesses usually healed quickly. In five cases healing occurred in a few weeks, in twelve in a month and in two in four months (complications). In cases not operated upon healing required from three to four months.

PROGNOSIS

The prognosis of perinephritis due to pyonephrosis is extraordinarily poor, but in the other types of cases it is relatively favorable.

LOUIS NEUWELT M.D.

Corbus B. C. and Danforth W. C. Pyelitis in Pregnancy. *J. Urol.* 927 xiii 543.

Pugh W. S. Pyelitis of Pregnancy. Its Treatment with the Indwelling Catheter. *J. Urol.* 197 xiii 553.

Crabtree E. G. Stricture Formation in the Ureter Following Pyelonephritis of Pregnancy. *J. Urol.* 197 xiii 575.

CORBUS and DANFORTH review cases of pyelitis of pregnancy, supplementing their report with pyelograms. After termination of the pregnancy definite changes in the urinary tract were demonstrated in all, but the authors believe that in some instances these changes were present before the pregnancy began, the route attack of urinary infection during gestation being due to activation of the original lesion by the pregnancy and in some instances additional obstruction produced by the pregnant uterus. As the termination of the pregnancy does not cure the urinary infection, the treatment should be continued until the urinary tract has become normal or as near normal as possible.

PUGH states that the treatment of pyelitis of pregnancy should include the forcing of fluids and drainage of the renal pelvis by an indwelling ureteral catheter, preferably a large catheter opaque to the X-rays. The larger the catheter the shorter the duration of illness. Though there may be some discomfort during the early stages, this will pass away as drainage is established. Operative intervention is rarely indicated.

CRABTREE concludes that stricture of the ureter due to pyelonephritis of pregnancy may occur in locations not affected by the fetus. The delay of symptoms until several months after delivery he attributes to the fact that during pregnancy there is a dilatation of the entire ureter and renal pelvis. He reports a case in which a stricture of the ureter demonstrated prior to pregnancy subsequently disappeared in the ureterogram but several months after delivery could again be definitely seen. He

reports also a case of ureteral stricture following acute pyelonephritis of pregnancy which showed a direct relation between the kidney condition and the blood pressure. Following a nephro-ureterectomy the blood pressure returned to normal and the general condition became markedly improved. The pathological specimen showed cicatrization of the ureter for a distance of about 3 cm, this indicating that palliative dilatation of the ureter would probably have failed.

J. SYDNEY RITTER M.D.

Moller W. A Simple Improved Method of Extracting Deep Calculi from the Ureter. (Eine verbesserte und einfache Methode zur Extraktion tiefsitzender Uretersteine). *Acta chir. Scand.* 197 lvi 367.

In the extraction of a calculus from the intravesical part of the ureter the author made use of a pair of Bruening forceps which are intended for the extraction of foreign bodies from the bronchi. He inserted the forceps into the bladder at the side of the cystoscope.

With the use of suitable end pieces this instrument may be employed partly for dilatation of the ureteral orifice and partly for grasping and extracting the concretion. Its introduction is simple and the manipulations which can be controlled by direct vision are exact, painless and apparently free from danger. The use of the instrument should be restricted to concretions in the lowest part of the ureter in the female.

Hunner G. L. Ureteral Stricture and Chronic Pyelitis in Children. *I. J. Dis. Child.* 192 x 1 603.

In most of the infants and children treated for chronic pyelitis by the author ureteral obstruction attributable to ureteral stricture has been found and in many cases the establishment of urinary drainage by dilatation of the narrow area in the ureter has resulted in a cure. It is generally believed that the only treatment for chronic pyelitis in children is medical and dietary or in extreme cases surgical. To date the additional use of vaccine has proved of no value. The treatment of chronic pyelitis in children has been based on the supposition that the condition is secondary to gastro-intestinal disturbances, but since the urologist has found that the gastro-intestinal disturbances often clear up after the establishment of effectual renal drainage it is evident that when such disturbances are associated with definite symptoms referable to the urinary tract, the treatment should not be limited too long to the gastro-intestinal tract.

The author believes that most of the chronic infections of the upper urinary tract are located in the renal pelvis and may be classed as pyelitis or infected hydronephrosis. This view is supported by the observation that in 80 per cent of cases of ureteral stricture with varying degrees of stasis and dilatation in the upper urinary tract there is no urinary infection or history of previous infection and in the 20

per cent high show infection on the pus disappears promptly and the urine becomes sterile after dilatation of the ureteral stricture and the establishment of good drainage.

Failure of the pyelitis to clear up promptly after dilatation of the stricture in the lower ureter may be due to (1) persistence of the narrowing because of repeated irritation from some distant focus of infection (2) secondary narrowing at or near the pelvic ureteral junction or (3) an unusually large pelvic which causes the encasement of the kidney and the by interference with drainage.

In cases of the first type the eradication of the focus of infection will result in permanent drainage and a cure of the pyelitis. In cases with secondary narrowing the passage of bulbs of catheters is effective in the relief of the narrowing. In cases of functionally large pelvic the release of adhesions and dilatation of the pelvic ureteral stricture result in relief of the enlarged pelvis and high drainage of the kidney are indicated.

Urographic kidneys are all interpreted as the cause of hydronephrosis. Impairment of drainage of the kidney by nephropathy have been performed for the correction. Frequently however the dilatation of the origin of the ureter is followed by spontaneous reabsorption of the prelaparoscopic dilatation. The resulting good drainage and clearing of the infection.

In practice, all cases of stricture of the ureter are treated by dilatation. As a rule the patient returns for repeated ureteral dilatations so long as such a infection persists but when the focus is removed a permanent cure usually results after a few more dilatations. The effects of stricture may be relatively late in life. According to recent investigation of Scherberger stricture may result also from congenital malformations such as the acanthosis of a normal kidney. In the ureter kink obstructs the drainage of the anatomical stricture such as the stricture of the ureter and uterine stricture the stricture of the ureteral tumor and stricture of the ureteral wall.

Some cases of pyelitis may be the result of cystitis but most cases of the infection had been a part of the urinary tract with secondary stricture of the ureter. The upper urinary tract. If the ureteral stricture is a primary one no mal drainage of the kidney usually established as soon as the cystitis subsides and the infection in the kidney subsides synchronously with that of the bladder. When the infection is continued stasis in the kidney due to malposition when perinephritic rupture of the ureteral adhesion have developed during the infection attack and when the infection has been a stricture of the ureter with stricture the acute pyelitis may persist until the ureteral channel is opened.

Since the part played by ureteral stricture in most chronic renal infection has been recognized the good result obtained from renal lavage have been attributed to the dilatation of the renal catheter rather than to the solution used.

In thirty-four cases of renal involvement in children fifteen years of age or younger the following conditions were found: pyonephrosis one case, hydronephrosis six cases, hematoma three cases, congenital malformation one case, renal calculus two cases, tuberculosis fourteen cases and chronic pyelitis twelve cases. Lot S. N. Velt. M.D.

GENITAL ORGANS

Wildb. Iz. H. T. Sts of Renal Function in Prostatic (U. b. N. f. L. t. p. r. f. e. b. P. s. t. u. k.) Z. i. f. l. C. 97 x 46

The author reports his last 135 prostatectomies in which the function of the kidneys as determined before the operation by three methods: viz the dilution and concentration test, the dye excretion test and determination of the residual urea in the blood.

The dilution and concentration test of Strauss proved to be the most sensitive test. The first showed a loss of secretory power. In none of the patients with more than 100 ccm of residual urine were the results normal. Particularity the power of concentration as considerably diminished as a rule but this improved gradually under regular catheterization. The effect of the Beecher proved to be of little value.

The dye test (indigocarmine and phenolphthalein) showed defective renal function less regularly. The author always injects the dye into a muscularly contracted intravenous injection of foreign substances is not at all entirely harmless. He prefers phenolphthalein because the amount of dye that is excreted within the first and second hours is chiefly proportional to the size of the estimate of phenolphthalein.

The author determined the amount of residual urea in the blood by the hypochromite method with the use of the Lauterburg apparatus. A procedure which requires only 1 ccm of blood. He considers 50 mgm of residual urea in 10 ccm of blood serum as a normal amount (maximum). As a rule the operative result is not only the residual urea in the blood as less than 50 mgm but a number of cases it is performed he the values are higher because the other tests of function showed good values—70 and 85 mgm. In one case in which there were 8 mgm of residual urea and the other tests also showed pressures less than occurred eight days after the operation the residual urea had increased to 100 mgm. This was the urea due to the frumamur the series of 135 prostatectomies.

In summary the author remarks that none of the methods used is absolutely reliable. Whether the dilatation of the kidney is ill or not allows a positive result. An unfavorable result of the dilution test is not itself a definite indication for prostatectomy but it serves as a guide to indicate the importance of the use of the function tests in a dilution. A favorable result of the test of the other hand indicates a coefficient of other factors of the specific gravity between

a minimum and a maximum of more than 0.015 seems to indicate good renal function

With the phenolsulphonephthalein test (intramuscular injection) the limit of operability in the case of a prostatic is indicated by the excretion of 10 per cent of the dye in the first hour provided the values are considerably higher in the second hour and the other functional tests show satisfactory results. As a rule all three tests result either favorably or unfavorably. When this is the case the decision is easy. In other cases repeated control tests are necessary. Each method gives information regarding only some of the function of the kidneys and a poor result of a single test does not necessarily indicate renal insufficiency. Only high residual urea values in the blood are an absolute contra indication to operation.

In determining the operability of borderline cases the author considers not only the condition of the lungs and vascular system but also the possibility of performing the prostatectomy by the perineal route. He regards the perineal prostatectomy as less injurious to the general condition than the suprapubic prostatectomy and has observed also that the residual urea in the blood after operation by the perineal route rises much more slowly and to a less extent than following the suprapubic procedure.

Wildbolz urges treatment by regular catheterization for some time previous to prostatectomy. Even very seriously defective renal function may be so improved by the relief of urinary stasis that after a few weeks the operation can be carried out successfully. For this preliminary treatment the author prefers regular catheterization or the use of a retention catheter to the two stage prostatectomy since in certain renal injuries the preliminary suprapubic section may itself produce uraemia. But the surgeon should not be led to perform a prostatectomy merely because the clinical picture has improved under preliminary treatment; his decision to operate should always be based on the results of repeated tests of renal function.

JANSSEN (Z)

Thomas B A. and Robert J T. Prostatic Calculi. *J Urol* 1927 xviii 470

Prostatic calculi may be classified as primary or endogenous and secondary or exogenous. The former are septic or aseptic. It is now thought that they begin as corpora amyloacea the result of natural function. They are at first composed of organic matter but later are impregnated by earthy constituents becoming dense and opaque concretions from the deposition of calcium phosphates and carbonates. Inflammation and obstruction aid the process and infection plays an important role. In 68.6 per cent of the cases there is no history of gonorrhoea.

Iosphatic calculi have been found as early as the tenth year of life but they occur most often in the fifth decade. The vast majority are intraglandular. They are found usually in the lateral lobes and as a rule are bilateral.

Prostatic calculi are most commonly associated with chronic prostatitis and frequently with neisserian infection. They are rarely found with malignancy. Their most common symptoms are frequency and difficulty in urination, burning urgency, haematuria, retention of urine and perineal pain.

The most reliable method of diagnosis is a rectal examination. Rectal examination reveals crepitation and a nodular or stony hardness.

Serious sequelae may be averted by early intervention. Prostatic calculi do not tend to recur.

The best treatment is prostatolithotomy with thorough removal of all particles. Sometimes a stone may be crushed and removed through the endoscope.

BENJAMIN F. ROLLER, M.D.

Thomas B A. Vital Factors in the Management of Prostatic Obstruction. *Ann Surg* 1927 lxxv 563

As a prophylactic measure in cases of prostatism Thomas urges early operation before organic complications set in. In cases of prostatic obstruction cystoscopic examination is necessary to determine not only the type of obstruction but also the presence or absence of associated pathological conditions such as diverticulum, tumors, calculi and hypertrophy of the trigone. In about 10 per cent of the cases some form of bar formation and a contraction of the bladder neck are found.

In deciding whether to operate or whether to permit so called catheter life the author's axiom is:

Operate if you dare to and catheterize only if you must. When possible surgery is better.

Operation should be preceded by:

1. Determination of the kidney function by estimating the blood urea nitrogen. A reading of over 30 mgm denotes a poor risk. The author determines the quantitative excretion of phthalein making collections during three twenty minute periods. When the kidneys are damaged the duration of elimination is delayed and hence the output of the first interval may be almost nil at times. When the output is less in the first period than in the third period injury of the kidneys is indicated.

2. A study of the cardiovascular system with particular attention to the blood pressure readings. When in cases with low tension the systolic pressure is 110 or less the diastolic pressure must be over 60 when the diastolic is less than 60 the systolic must be over 110. When in cases of high tension the systolic is 180 or more the diastolic must be less than 100 when the diastolic is over 100 the systolic must not be over 175. This is not pulse pressure in the usual sense but rather pulse pressure with systolic and diastolic limitations.

3. Routine tests such as the blood Wassermann reaction, the determination of the coagulation time of the blood, routine blood sugar estimations and examinations of the central nervous system for evidence of disease.

Age *per se* is never a vital factor in prohibiting surgery of the prostate. Modern urology which

has made an art of both pre-operative and post-operative care has reduced the operative mortality from 50 per cent to less than 5 per cent.

The author prefers the use of a retentive catheter when possible to first stage cystotomy. A view of the bladder neck is the best index to whether surgery should be done by the suprapubic or perineal route or by some form of puncture operation. The suture ligation of the bleeding point at the time of portotomy is favored. Lack of the prostatic bed is considered the least desirable method of controlling hemorrhage. Vasectomy is done only for recurrent epididymitis. If embolism, phlebitis and epididymitis can be prevented, the method is not be allowed out of bed too soon.

M M MD

MISCELLANEOUS

Kr tschme H L Urological Problems in Infancy and Childhood J U I 97 433

The author reviews the urological handicaps of the cases of epithelial children ranging in age from twenty-seven days to fourteen years. Twelve of the children were under two years of age. Forty-two were boys. With the exception of pyelitis, the incidence of the various lesions as about the same in both sexes. Pyelitis was found more frequently in girls than in boys.

Kr tschme is of the opinion that medical treatment of urological conditions frequently continues too long but that in the case of children it should always be tried before complete urological examination is made.

In the past cystoscopy with ureteral catheterization has been regarded as inadvisable in the case of children because it is a major procedure requiring an anesthetic and is often followed by a severe reaction. The author believes that all of these objections are unfounded. The urologist has been properly advised as to if the proper instruments are used. In his opinion, the indication for cystoscopic examination are the same in infant and children as in adult.

Besides the establishment of urological diagnosis, the urologist is being called upon more and more frequently to make differential diagnoses of abdominal conditions and to differentiate between lesions of the right upper quadrant of the abdomen and the right kidney.

In Kr tschme's method of procedure, a complete history is first obtained. A complete physical examination including a search for evidence of infection is then made. The third step is a careful examination of the urine. This is followed by an X-ray examination of the urinary tract to demonstrate possible calculi or if tube culture is of the kidney, suspect the presence of calcification. Cystography is not done as a routine procedure but may give valuable information. The physical examination reveals a suprapubic tumor. Tests of renal function are always carried out and especially important in cases of recent acute infection of the kidneys in which cystography and a double nephelography might be dangerous. After all of the other examinations have been made, cystoscopy, ureteral catheterization and pyelography are done. These examinations are rendered possible in the cases of children by the very small caliber cystoscopes that are now available. For a rapid technique, practice is essential.

The author prefers to induce anesthesia with ethyl chloride but states that there is little objection to the anesthetic if a few minutes should be sufficient for ureteral catheterization. In many cases, cystoscopy and ureteral catheterization can be done under chloroform anesthesia.

In conclusion, Kr tschme states that at the present time, favorable treatment of medical knowledge, a complete urological study is definitely indicated in all urological conditions in children which do not respond promptly to medical treatment. He has found that instrumental therapy such as laser pyelitis and lithotripsy for bladder stones can be carried out with accuracy in children as in adults and that the ultimate treatment of them is less so. Child nephrosis is no special problem.

H N Y L S ORD MD

SURGERY OF THE BONES, JOINTS, MUSCLES, TENDONS

CONDITIONS OF THE BONES JOINTS MUSCLES TENDONS ETC

Bernstein M A and Arens R A Epiphyseolysis
Radiology 1927 ix 497

Epiphyseolysis called also slipping epiphysis acute epiphysitis and epiphyseal coxa vara is a condition of uncertain etiology. It is claimed by many to be due to an endocrine disturbance but has been attributed also to often repeated slight trauma. It occurs most commonly at the age of adolescence. It results pathologically in softening and separation of the epiphyseal cartilage which cause the head of the femur to separate from the neck. When the separated head is reduced and maintained in normal relation to the neck it becomes reattached. The condition often leads to moderate coxa vara. It is associated with considerable pain muscle spasm muscular rigidity external rotation and adduction of the thigh. In most cases only one hip is involved but occasionally the separation may be bilateral.

The authors discuss the various theories regarding the etiology and the etiological factors noted in the cases observed by them. The mechanism involved in the production of the condition is described and the roentgen findings noted at various stages are given in detail and illustrated by roentgenograms.

A diagnosis in the early stages before there are well defined roentgenological findings is very difficult if not impossible. The presence of a beginning epiphysitis is suggested when a young adult suffers from acute pain in the hip joint or as is more usual a pain in the knee with the progressive development of disability. Examination may reveal adduction external rotation slight flexion muscular rigidity muscle spasm shortening of the extremity and limitation of abduction. The roentgenogram may show a slight loss of density of the head of the femur widening of the epiphyseal line and a slight rarefaction around the epiphyseal portion of the neck. When separation of the head has occurred the diagnosis is not difficult.

The condition must be differentiated from acute septic epiphysitis tuberculous fracture of the hip and Legg Perthes disease.

The histories of five cases seen by the authors are given in detail.
ADOLPH HARTUNG MD

Rogers M H The Formation of Rice Bodies in Tuberculosis
J Bone & Joint Surg 1927 ix 636

The study of a case of tuberculosis with positive guinea pig inoculations and microscopic findings revealed that rice bodies are composed of tuberculous material are first attached to the wall of a tuberculous cavity and are formed from the center of a tubercle.
DANIEL H LEVINTHAL MD

Bressot and Fischer Two Cases of Periosteal Sarcoma One Patient Who Was Treated by Roentgenotherapy Has Remained Cured for a Year and Eight Months the Other Who Was Operated upon Died Five Months Later (Deux cas de sarcome périostique l'un traité par radiothérapie reste guéri depuis vingt mois l'autre opératé meurt en cinq mois) *Lyon chir* 1927 xxv 45

The first case reported was that of a man of twenty five years who developed a tumor on the upper extremity of the left humerus. The arm was intermittently painful and the circumference of the arm at the center of the tumor (which was on a level with the center of the deltoid) measured 4.5 cm more than the circumference of the other arm. The clinical symptoms—slow evolution of the growth and only moderate local disturbances—suggested that the tumor was benign but the roentgenogram showed the changes characteristic of periosteal spindle cell sarcoma as established by Javornier and others.

As the patient refused to allow amputation roentgen treatments were tried being given in two series of sixteen daily sessions each with an interval of two months between the series. Both anterior and posterior irradiations were made. The total duration for each site of application was three hours and twenty minutes for the first series and three hours for the second series. By the end of the first half of the treatments the size of the tumor had diminished by about one third and the pain had ceased entirely. At the close of the second half the patient was able to resume his military service.

Subsequent examinations carried out at intervals during 1926 showed that the regression of the tumor had continued after the termination of the treatments. One year later the size of the left arm was reduced to normal all clinical signs of the tumor had disappeared and the general condition was excellent. The patient was still in good health in January 1927 when he was last seen. The last roentgenogram taken in March 1926 indicated almost complete resorption of the tumor regeneration of the cortical layer and cicatrization of the periosteum.

The authors second case was that of an eighteen year old boy who was placed in a plaster cast after a swelling in the juxta epiphyseal region of the tibia had been diagnosed as tuberculous arthritis. On removal of the cast forty days later the clinical signs indicated clearly that the tumor was a sarcoma of rapid evolution. This diagnosis was confirmed by a new roentgenogram which showed that the neoplasm originating in the superior epiphysis of the tibia had broken through the cortical layer and

tendon sheaths and wrist joint in much the same fashion as tuberculosis

On cut section xanthomatic tumors look very much like adrenal tissue having a marbled appearance with a mixed coloration of red and yellow, the latter being the color from which they received their name. The color is due to carotin and xanthophyll and not to cholesterol.

The microscopic picture is characterized by the presence of foreign body giant cells often in large number and by foamy cells or xanthoma cells which are large polyhedral cells with cytoplasm filled with vacuole containing cholesterol. Fibroblasts adult connective tissue blood sinuses deposits of blood pigments and recent areas of hemorrhage are found. There is no element which is incompatible with granulation tissue. The xanthoma cells seem to develop from endothelial cells and fibroblasts by the taking up by the latter of cholesterol and other lipoids resulting from the destruction of tissues.

In three of the cases reported blood cholesterol determinations were made and were found to be within the normal limits. The authors conclude that there is no evidence that the isolated tumors are the results of an increase in the blood cholesterol despite the fact that the multiple growths are often associated with such an increase.

The tumors occur as a rule during adult life and trauma appears to be a factor in their development. Females are slightly more often affected than males. Of the tumors occurring on the arm 63 per cent occur on the right arm or hand. In decreasing frequency of involvement the areas of the hand in which the tumors develop are the index finger, the thumb, the middle finger, the little finger, the palm, the ring finger and the wrist. The tumors are most common on the flexor surface.

Few symptoms are produced by the growths. In rare instances there is pain or tingling along the finger. The tumors have a tendency to grow after being traumatized but this is not to be taken as evidence of malignant change. They have the consistency of a fibroma. This characteristic and the yellow and reddish brown coloration are enough for the macroscopic diagnosis. They are quite benign and do not produce metastases although a certain percentage recur after their removal. If well removed they do not tend to recur but when they form again a second local removal rather than a mutilation operation is indicated.

Herndon, R. F. Three Cases of Tabetic Charcot's Spine. *J. B. & J. Surg.* 1927, 15, 60.

The author reports three cases of Charcot's spine in men with the typical neurological signs of well developed tabes.

The first was that of a miner who had been squeezed between a pit car and a rib of coal ten years previously. Five years after the accident a lump appeared in the lumbar region. This slowly increased in size but did not interfere materially with the man's work. The lumbar region of the spine was

slightly shortened and its central portion presented an acutely rounded almost angular kyphosis with slight scoliosis. Palpation revealed a hard not tender thickening. Although this portion of the spine was fixed the mobility of the entire spine was greater than normal so that in bending the patient appeared to have a hinge in the lumbar region. There was also painless disorganization of both ankle joints.

The roentgenogram showed advanced destruction of the second and third lumbar vertebrae with compression rotation and scoliosis. The intervertebral spaces were obliterated. The involved vertebrae were bridged and supported by large osteophytes.

When the patient was examined again four years later there had been marked progression of the condition with such disorganization of the lumbar spine that he was unable to hold his trunk erect without support. The roentgenogram showed almost complete disappearance of the fifth lumbar vertebra and erosion of the upper part of the sacrum.

The second case was that of a miner who experienced pain in his back about two weeks previously while lifting. His spine showed a sharp kyphosis extending from the eleventh dorsal to the third lumbar vertebra. Movements of the spine were normal except that the segment involved was fixed.

The roentgenogram showed a relatively early process involving chiefly the first lumbar vertebra but causing destruction of the space below it tilting and rotation. Osteophytes had already produced ankylosis.

The third case was that of a farmer who after ten years of tabetic manifestations developed weakness and lameness of the left leg and later a painful catch in the lower back with pain radiating generally into both legs. His back became tired easily and he found it irksome to sit or stand for any considerable length of time.

Physical examination showed shortening of the lumbar region and a sharp kyphosis with its greatest prominence over the fourth vertebra. The roentgenogram revealed almost complete destruction of the fourth lumbar vertebra with mushrooming and enormous proliferating osteophytes on either side.

The initial change in Charcot's spine seems to be a simple breakdown of one of the lateral articulations of the vertebral body associated with a decrease in the cartilaginous space. As the bony destruction continues there is compression of the vertebral body with displacement posteriorly and laterally. Usually the process is limited to one, two or three vertebrae so that the deformity is localized and acute. Proliferative changes are abundant, the affected region of the spine being usually ankylosed. Separated fragments such as are frequently discovered in the knees and ankles are rarely found in the spine.

The local findings are characteristic. In addition to more or less swelling and infiltration there is usually a sharp kyphosis with more or less lateral curvature and rotation and some shortening due to compression. The involved section of the spine is

usually rigid because of ankylosis by bony deposits. However the movements of the entire spine are usually normal or increased by the local disorganization. There is practically no tenderness and no involuntary muscle spasm.

One of the most characteristic features of Charcot's spine is the disproportion between the severity of the process disclosed by the roentgenogram and the slight discomfort and disability of which the patient complains.

Boorstein S W Oteochondritis of the Spine
with a Report of Two Cases J J J I
S 97 69

Vertebral epiphysealitis is characterized by development of the spine in the form of a knoblike average calizid kyphosis or scoliosis with little or no pain.

The roentgenograms usually show that only one vertebra is affected. This vertebra assumes a conical form shape. The entire involvement of the disks above or below it. The cartilage is usually thick.

The etiology of the condition is unclear. Gallies disease and Osgood-Schlatter disease is unknown.

In the treatment immobilization in a plaster of Paris jacket or brace is indicated. The infection should be sought.

In order that the clinical syndrome of osteochondritis of the spine may be definitely established every cause of spinal deformity suggesting the condition should be studied.

The author reports two cases in detail.
D H L I M D

Fagge C H On Injuries of the Semilunar Cartilage
Jagge B J S 97 3

In Fagge's opinion the diseases of cartilage injuries can usually be made from the history. Moreover has stated that when a fracture of the cartilage is of the bucket handle variety, the patient is usually disabled by pain, effusion, locking, or a sense of insecurity in the joint. Fagge, however, has been unable to confirm this observation. To since practically all of his patients with a bucket handle fracture of the terminal semilunar complained of occurrence of disability with intermission of complete freedom from symptoms. An explanation for the intermittency of the symptoms in such cases is suggested by the fact that the torn strip is often found in its natural position instead of in the intercondylar notch.

Localized tenderness below and medial to the patella is a significant finding. The author believes that those who describe palpable cartilage at the point have palpated a swollen synovial fringes which roll under the palpating finger.

Locking is frequently a diagnostic sign as it may be caused by loose bodies of any type.

In discussing the mechanism of the injury, Walton claimed that the cartilage is fractured in full extension being caught between the two bones dislocated to a degree producing force. Martin laid stress on an inward twist as the chief factor. Callan attributed to the close contact between the

terminal semilunar cartilage and the capsule and internal lateral ligament. He stated that if the cartilage is caught between the terminal condyle and the inner tuberosity and dragged toward the center of the joint a split or tear results.

The author believes that flexion and abduction are necessary for cartilage injury but that the joint must be gradually extending when the fracture occurs. According to some orthopedists rotation is important in the causation of these injuries but in Fagge's opinion this is not a necessary factor.

Morrison has observed that the cartilage is always torn but never entirely detached from the capsule.

Following the application of a tourniquet a free generous exposure of the knee joint should be made in order that no lesion will be overlooked. In Fagge's technique a curved incision is made parallel with and in front of the inner border of the articular surface of the internal condyle. The internal lateral ligament is carefully preserved. Except in a very few cases Fagge has not found it necessary to remove the entire cartilage. Preservation of the posterior attachment does not cause locking. Fagge does not remove the synovial fringes. Before releasing the tourniquet he applies a compression bandage.

In the after-treatment aspirin and morphine are indicated for the relief of pain and the knee slightly bent should be supported in a pillow. Passive movements are contraindicated. Lagge's patients are up and walking after from seven to ten days. Massage of the quadriceps is then begun.

Chubb W R and Conley A H Injuries to the Meniscus and the Ligamentum Mammillare Commonly Called Internal Derangements of the Knee Joint S J G 97 1

The medial meniscus may be injured by a fall on the knee by direct trauma. In the majority of these injuries exposure of the medial meniscus between the patellar tendon and the internal lateral ligament is the rule. The lateral meniscus. When genu valgum is present the medial meniscus is still more exposed, probably more subject to injury.

From the pathological standpoint cases of injury to the meniscus may be divided into three groups.

1. Those in which the anterior portion of the meniscus is torn.

2. Those in which the lateral portion is detached.

3. Those with displacement of the medial portion. The standard operation is described.

Ro V Fu M D

SURGERY OF THE BONES JOINTS MUSCLES TENDONS ETC

Kane F C and Muir F C Comparative Resection of Operative and Non-Operative Methods of Treatment of Tuberculosis of the Spine in Children J B & J S 97 649

Under conditions as nearly ideal as possible fourteen children under ten years of age with tubercu-

losis of the dorsal or lumbar vertebrae were chosen for a prolonged comparative test of the operative and non operative methods of treatment. So far as possible they were divided into pairs according to their age, the stage of the disease and their general physical condition. From each pair one child was selected for operation and one for prolonged frame treatment. In the surgically treated cases the Hibbs type of fusion was done. In both groups of cases the same physical and X ray examinations were made and the same after treatment was given. From time to time the children who were clinically free from symptoms whether operated upon or not were allowed to get up wearing a back brace in order to test the solidity of the healing. Such tests always led to a recurrence of symptoms in a shorter or longer period unless the roentgenogram showed a continuous firm bony bridge uniting the diseased vertebrae and disappearance of all signs of rarefaction between them.

Thirteen of the children are well and physically active. Eleven have small unimportant kyphoses. The only abscess that developed was present when the child was first seen.

One child who was operated upon has a marked kyphos and is not cured because the fusion did not include a sufficient number of vertebrae and because the child was taken home against advice and all treatment was stopped.

Another child who was treated surgically has a moderate kyphos due to failure of complete fusion of the laminae which necessitated a second operation.

All of the children except these two have flexible useful spines but the authors believe that the flexibility is greater in those who were not operated upon.

The following conclusions are drawn:

1. The cure of tuberculosis of the spine depends principally on long continued rest without weight bearing.

2. Cases in which fusion operations have been done require practically as long and careful after treatment as those without operation.

3. When cured patients not operated upon have more flexible spines than those treated surgically.

4. The possible shortening of convalescence does not justify the risk incident to operation.

The authors' cases will be kept under observation and a final report regarding them will be made later.

DANIEL H. LEVINTHAL, M.D.

FRACTURES AND DISLOCATIONS

Eskelund V. Fracture of the Lower End of the Radius (Colles Fracture) and Its Treatment. *Acta ch. rg. Scand.* 1927 101: 41.

In the 5 year period from 1921 to 1925, 34 cases of fracture of the lower end of the radius were treated at the Policlinic of the Kommune Hospital of Copenhagen. Two hundred and twenty three of the patients were women. In the men the right arm was injured more frequently than the left whereas in the women the reverse was true. Frac-

ture of the styloid process was found in 46 per cent and fracture lines extended to the articular surface in 12 per cent of the cases.

The treatment consisted in reduction—usually without anesthesia—and the application of a plaster of Paris splint to the pronated, markedly flexed limb in ulnar abduction. After from 6 to 8 days of immobilization the splint was removed and massage was begun. Subsequent examinations in 106 cases (about 60 per cent of the total number) showed the results to be as follows:

| | Exc. II t | G d | F | P |
|------------|-----------|-----|---|---|
| Functional | 60 | 33 | 6 | 0 |
| Anatomical | 55 | 36 | 9 | 0 |

These results appear to be better than those reported in the literature available to the author, but the period of treatment was somewhat longer as it averaged between 6 and 8 weeks and in 17 cases was more than 14 weeks.

Jackson R. H. Simple Uncomplicated Rotary Dislocation of the Atlas. *Sig. Gynec. & Obst.* 1927 14: 156.

Jackson reviews twenty even cases of simple rotary dislocation of the atlas recorded in the literature and reports four cases of his own. The dislocation is produced by rapid and uncontrolled rotation of the head. Ordinarily the odontoid process is not fractured or displaced but its condition must be ascertained before manipulative reduction is attempted. This determination is not always easy even with careful roentgenological study.

Following a description of the symptoms accompanying the dislocation the author states that if the lesion is not recognized and reduced it may result in sudden death from an increase in the dislocation or the development of myelitis months or years after the injury. When reduction cannot be accomplished by the closed method the advisability of open reduction must be considered.

In conclusion Jackson describes an operation devised and performed by Mixer and Osgood in 1906 and an operation performed by J. A. Jackson in 1918.

ROBERT V. FUNSTON, M.D.

Jefferson G. On Fractures of the First Cervical Vertebra. *Brit. M. J.* 1927 11: 153.

The author reports three cases of fracture of the posterior arch of the atlas in one of which the odontoid process was broken in addition. He reviews also sixty two cases reported in the literature and in a table gives the nature of the accident, the clinical signs of cord or nerve injury, the anatomical diagnosis and the results.

The chief symptoms of fracture of the first cervical vertebra are pain and rigidity of the neck.

With regard to the mechanism of the fracture the author reminds us that the lateral masses of the atlas are triangular with their wide base outward and that the upper and lower articular facets correspond

The force when force is applied directly downward from the top of the head a tension fracture may occur and the atlas ring gives way

The treatment of fracture of the first cervical vertebra is immobilization in plaster of Paris

ROBERT V. FUNSTON, M.D.

Falt n R Roentgenog ms of Fractu es f tle
Femur (l g ber d R t g f hm
F m f kt) A i ch g S d y l
5

In the study of roentgenograms of fractures of the femur especially those occurring in the middle third it is often difficult and sometimes quite impossible to determine the position of the fragments when anatomical detail and angulation are wanting. From the form of the fragments it is not always possible to decide with certainty which is the proximal and which is the distal fragment or to determine the plane in which the roentgenogram was taken.

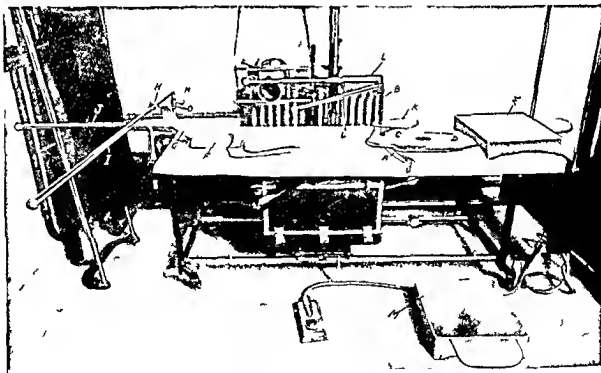
After discussing several methods of eliminating uncertainty by making the plates, the author suggests the use of a thin metal disk measuring 4 by 3 cm and having perforated letters the disk to be fastened by means of adhesive tape to the left lower corner of the plate before the exposure is made. He

marks the dist. for the right thigh with the abbreviated Latin inscription *dx dist lat* or *dx prox* depending upon whether the roentgenogram is to be taken in the anteroposterior or the latero medial plane. For the left thigh the corresponding inscriptions are *sin dist med* and *sin dist*. Two metal disks are therefore necessary for roentgenograms of each leg.

The roentgenograms are put up for examination in such a way that the plate exposed in the anteroposterior plane shows the femur in the vertical position and the plate taken in the lateromedial plane shows the femur in the horizontal position the positions in which the clinician is accustomed to examine fractures of the femur when the patient is lying on his back.

McCutchen L G A New Device for the Reduction
of Fractures Use Advantages and Results
Readings 97 38

The author presents a device for the reduction of fractures under fluoroscopic control which seems worthy of a trial. He states that it is extremely simple in its operation and the amount of extension obtained by it is equivalent to the pull of more than six men. It is made of casted aluminum which is



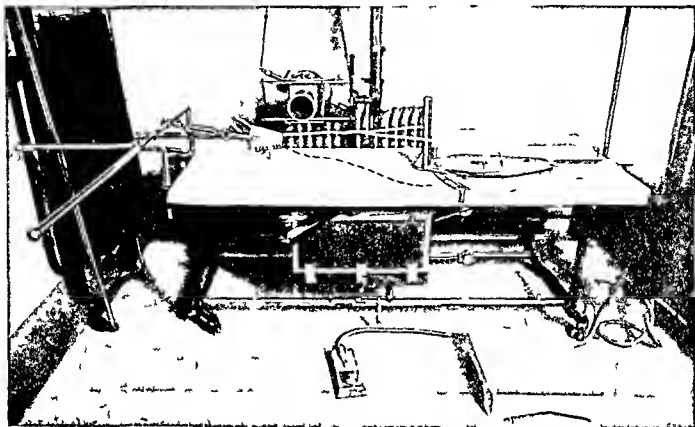


Fig 2 Device with cuff attached to ankle peg in crotch

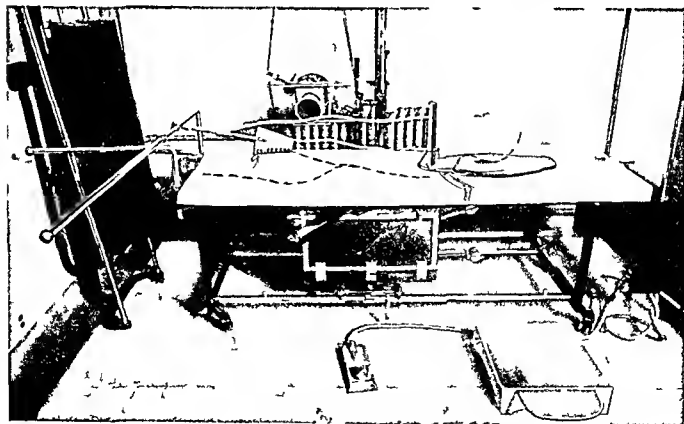


Fig 3 Device with cuff attached to wrist peg in axilla

I serve us to the very light a strong and will not
 rust rarp. It is attached to the ray o operat
 i groom table by mean f three socket—one at the
 heal and two at the f t f the table. A th se
 sockets are bolte i the end of the table so that
 they fit evenly ith the urface they in n v m r
 the tabl or inte fere ith ts functio The att ch
 ment f the le ice equ s le s than th e m nute
 On let chment it may be et as le o caried
 elsewhere f r further ue In mall hosp tal t
 eliminates the nece s ty for a eparate fracture om
 a l fracture table I DE CK A J R S MD

Inberg K R Fle Strength f C tain Mat als
Used fo Ext nsion (B t h B l t f
h k t g St c k b l l t / g
s d o |

To determine the quality of a lining and the maximal tensile strength of certain material used for lining the author carried out 19 experiments with two kinds of adhesive plaster and with

bands covered with mastisol Sinclair's glue and zinc glue determining the weights necessary to detach them from the skin.

He found that Sinclair's glue and zinc glue adhered most quickly and with equal rapidity. After forty minutes their resistance to detachment remained constant. The corresponding time for mastodont strips was four hours and that for ordinary adhesive strips seventy minutes.

In the experiments with regard to strength masti-
col strips were found to be the strongest. Ordinary
alhesive plaster and Sinclair's glue with too dry
tally the same load.

After the shaving of an area covered by considerable hair the tensile strength of ordinary adhesive tapes was increased from two and two tenths to five and eight tenths times and that of the monofilament strip from two and five tenths to three times. Therefore areas with much hair should be shaved before the application of adhesive plastic strips covered with sticky material.

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

BLOOD VESSELS

Carnett J B and Greenbaum S S. Blood Vessel Visualization. *J Am Med Ass* 1937 lxxv 939

The authors discuss the experimental and clinical aspects of blood vessel visualization as an aid in the diagnosis of vascular disturbances such as embolism, aneurysm, gangrene, and thromboangitis obliterans.

Various opaque media were tried, such as sodium iodide, potassium bismuth tartrate, dominal X, and iodized oil. Seard and Forestier injected 1 c.c. of iodized oil per kilogram into the femoral vein or artery of dogs without causing an untoward reaction. According to the roentgen picture, all of the oil disappeared in five minutes. In the examination of two patients with diabetic gangrene, Desplats was unable definitely to locate the arterial obliteration.

The authors found that 6 c.c. of iodized oil can be injected into the femoral artery without causing unfavorable results. In the technique used by them, the artery is exposed under local anesthesia and the leg elevated. The arterial pulsations are stopped while the intra-arterial injection is made and until the first series of roentgenograms are taken. Roentgenograms are made immediately after the injection.

Often very little iodized oil is seen in the trunks of the deep and superficial femoral arteries even when no obstruction is present. The terminal vessels in the foot are seen best in roentgenograms taken five minutes after the injection. Compression of the injected limb forces the oil out of the vessel.

In conclusion, the authors state that the procedure described is a harmless method of exploring the blood vessels. C O HELMOLD M D

Bernheim B M and Sachs L. Notes on the Collateral Circulation in Blood Vessel Diseases of the Lower Extremities. *Int Surg* 1927 lxxvi 47

It has long been known that the femoral artery may be ligated above the profunda without death of the extremity. The collateral circulation probably occurs by way of the gluteal arteries.

The authors point out that the vessels of the sciatic nerve in the normal limb are small and not easy to demonstrate, while any disease condition which produces obstruction of the main vessels is associated with enlargement and hypertrophy of the sciatic vessels out of all proportion to the size of the nerve.

The article reports seven cases in which amputation was done below the mid section of the thigh for gangrene due to different types of constitutional disease. In every instance, microscopic sections of the sciatic nerve trunks demonstrated an enormous

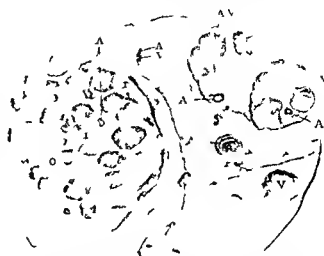


Fig 1 Compensatory enlargement of the arteries accompanying the sciatic nerve in a case of arteriosclerosis complicated by diabetes mellitus.

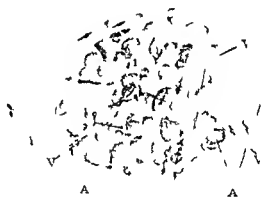


Fig 2 Compensatory enlargement of the arteries accompanying the sciatic nerve in a case of thromboangitis obliterans.

dilation of the sciatic vessels. Attention is called to the fact that these vessels were not obstructed by the disease affecting the main vessels.

WILLIAM J. PICKETT M D

Warthen H J Jr. The Fate of Foreign Bodies in the Venous Circulation. *Arch Surg* 1927 xv 712

In the literature there are to be found the reports of cases in which projectiles lodging in the veins have migrated to the heart. There is no mention, however, of the migration of such objects to the lungs.

The author inserted sterile and unsterilized metallic bodies into the femoral and jugular veins of fourteen dogs usually inserting seven objects in each animal. Of ninety-four foreign bodies inserted twenty-two were bullets, forty-three were shot and twenty-nine were nails from 18 to 3 mm long. Sixteen of these foreign bodies failed to leave the femoral vein and eleven were found in the iliac vein and venous cava during unclotted intrathoracic operations on two dogs dying soon after the insertion of the foreign bodies. Of fifteen objects which reached the heart three (bullet) remained in the right ventricle and six (nail) lodged in the pulmonary artery, the latter being apparently too long to negotiate the curve of the artery. The migration to the heart and lungs appeared to require several hours or days. In the lungs the bodies were usually clumped in two or three branches of the pulmonary artery and the major trunks of the lower lobes of the left lung.

In no case did immediate symptoms occur. The microscopic change in the lungs ranged from moderate congestion to gangrenous infarction. The lungs showed gross changes in only two cases. In one a local edema pleurisy was associated with the presence of sterile bullet. In the other a fatal lung abscess followed the setting in of unsterilized nail, but the nail did not lodge in the lung, entering the rib cage.

In another case two nails and a bullet lodged in the branch of artery showing a fatal abscess. A fulminating abscess followed showing the objects gained access to the tracheal circulation. In the third fatal case two bullets were found at the pole of the right ventricle. No cause of death except thickening of the endocardium and local myocarditis could be discovered.

In all three fatal cases unsterilized foreign bodies were used and in two cases the foreign nail. It is therefore apparent that sterile objects in the heart and lungs do little damage that unsterilized iron and that unsymmetrical foreign bodies cause infection and that unsterilized irregular bodies are the most dangerous. It appears also that light symmetrical objects such as bullets tend to remain in the heart. As they tend to lodge at the apex of the ventricle such is accessible to surgery, their removal practicable. Since objects lodged in the lungs usually cause no trouble, operation for their removal is seldom indicated.

LURIE & CLARK JR MD

Neugebauer F Gangrene of the Extremities (D
G g d E t m t t) B t K C I
97 d 67 9

When immediate ligation is done because of life-threatening hemorrhage in open traumatic injuries of the blood vessels the nutrition of the limb is seriously threatened as there is no time for the development of a collateral circulation. Reports in regard to the frequency of gangrene following involvement of the common iliac artery show some variation because the condition may be complicated by infil-

tration of blood into the tissues, infection, arterio-sclerosis or cardiac weakness. In very rare cases a break in the continuity of a large venous trunk alone (the femoral vein) may cause gangrene.

In open injuries of the forearm and leg the arteries and the veins should be ligated. Ligation of the subclavian axillary brachial and cubital arteries is also without danger. In the case of the common and external iliac the femoral and the popliteal arteries on the other hand suture should be attempted. In the determination of the collateral circulation the sign of Henle and Cocchi is of value. If suture is impossible on account of infection the principal vein must also be ligated.

In open injuries without damage to the artery itself the clinical picture of a break in the continuity of the blood vessel may be produced by traumatic segmental vascular spasm. So far it has been impossible to diagnose this condition positively before operation. Segmental vascular spasm rarely results in gangrene.

Occasionally slight trauma such as that produced by a hypodermic needle may be followed by gangrene of an extremity.

Gangrene from subcutaneous injury without demonstrable damage to the blood vessels is rare. This includes gangrene produced by surgical bandages. A common cause is obstruction of the blood vessels by tearing of the inner vascular membrane by dull injuries and gunshot wounds near arteries. In such cases the vascular murmur often indicates the site of the injury. In fractures gangrene is threatened by pressure on the blood vessels or laceration of the inner vascular membrane or of the entire vascular wall. Because of the marked infiltration of blood into the tissues such vascular injuries have a particularly unfavorable prognosis as they lead to gangrene in from 5 to 50 per cent of the cases according to the site of the injury. Dull injuries may also cause segmental or general vascular spasms.

Senile pre-embolic or spontaneous gangrene and diabetic gangrene have a common cause, namely arteriosclerosis. The latter condition occurs not only in old age but also in childhood. Occlusion of the blood vessels leads to proliferation of the vascular walls and secondary thrombus formation. The author relates the symptom. The use of iodine in the induction of focal hyperemia and operative section of the nerve supply of the blood vessels may often prevent the development of gangrene. The favorable effect claimed for the removal of one adrenal is doubtful. The Wietman anastomosis is of no avail but simple ligation of the veins is said to have a favorable effect in these as in other forms of gangrene. Periaortic sympathectomy is to be rejected as ineffective and not thought of. When dry gangrene has already developed the level at which amputation should be performed is best determined by the Moskowitz test. The amputation should be as simple as possible. Most gangrene with ascending infection necessitates a high amputation. When amputation is impossible hot air treatment is advisable.

Gangrene due to freezing is caused by a primary injury of the blood vessels. Cold causes changes in the blood vessel walls in addition to stasis. The beginning of gangrene due to cold unlike that of most other forms is painless. General weakness or illness and local changes favor the development of gangrene. In the treatment the limb should be warmed slowly. Quick warming may cause very severe injury. Elevation of the limb, massage and incision are indicated to overcome stasis. When gangrene has already developed the attempt must be made to keep it dry. Moist dressings are contra-indicated.

Embolic gangrene is very severe because it occurs usually in persons with poor heart function. Paradoxical embolism is very rare. The time at which gangrene develops depends upon whether complete occlusion was caused by the embolus immediately or resulted only after secondary thrombosis. The diagnosis is usually not difficult. The treatment tends more and more toward embolectomy. This may still be successful after from ten to thirteen hours. Emboli up to 86 cm. in length have been removed. In three cases incision of the aorta was successful. Recurrences are common. A cure results in from 36 to 44 per cent of the cases. Embolic occlusion of the blood vessels is caused more rarely by injuries of the chest and thoracic operations.

Gangrene of the extremities has been observed in nearly all infectious diseases. Gas gangrene is nearly always dependent upon vascular injury. The gangrene following general infection is peculiar in that it generally develops first after the most severe stage of the disease has passed. Its most common causes are thrombosis from toxic arteritis, endocarditic embolism of the main vessels or the vasa vasorum and venous thrombosis. The prognosis is poor as the mortality is 51.6 per cent. Gangrene resulting from syphilis is rare. Occasionally it has the clinical picture of Raynaud's gangrene.

Of the various poisons that may cause gangrene the most important is carbolic acid, but gangrene due to carbolic acid is now seldom seen. It results from marked transudation in the subcutaneous tissues. Lysol acts in the same way but causes pain early and is therefore less disastrous. Gangrene from carbon monoxide or lead poisoning is the result of an arteritis. The severe ascending necroses resulting from injuries produced by an electric current are also due to histologically demonstrable changes in the arterial wall.

The suspicion of a neuropathic gangrene (Raynaud's gangrene) demands the exclusion of all other forms. Of diagnostic importance are its periodicity, changes in the eye grounds and the findings of capillary microscopy. The most important agent in the treatment is heat.

KOENIG (Z)

LYMPH VESSELS AND GLANDS

Bernard R. The Surgical Treatment of Cancer of the Cervical Glands (Traitement chirurgical des adenopathies cancéreuses du cou) *J. de cl. r.* 1927

xx 4

As all of the cervical glands are enclosed in a sheath of cellular tissue they can be removed *en bloc* by finding the anatomical planes of cleavage which lie in the spaces that separate the muscles from the perimysium and the vessels and nerves from their adventitia. In cases of cancer removal of the glands should be very extensive even when they are apparently normal. Recurrence of cancer of the mouth and pharynx is generally not a true recurrence but the development of a latent adenopathy. In a submaxillary excision the submental space should be cleaned out and the carotid chain dissected in the space extending from the posterior digastric to the middle tendon of the omohyoid. Removal of the carotid chain should extend to the clavicle, sacrifice the sternocleidomastoid and terminate at the trapezius.

General anesthesia is very unfavorable in operations on the head and neck. The best method is the administration of ether by rectum or of chloroform by Delbet's pipe. The best incision is Morestin's large stellate incision. The two types of operation are submaxillary excision and complete cervical excision. The steps in both of these procedures are shown in illustrations.

The steps of the submaxillary operation are liberation of the maxilla, cellulotomy, beginning along the lower border of the maxilla, liberation of the parotid, exposure of the posterior belly of the digastric, dissection of the anterior digastric and the submental region, dissection of the mylohyoid, ligation of Wharton's duct and the facial artery, dissection of the omohyoid, liberation of the sternocleidomastoid and spinalis, dissection of the internal jugular, ligation of the thyroloquofacial trunk, dissection of the hyoglossus and ligation of the external carotid. The dissection of the hyoglossus frees the last attachments of the cellular mass which contains the glands.

In total excision of the cervical glands the sternocleidomastoid must be sacrificed whether the glands are adherent or not. The sacrifice of this muscle does not involve any loss of function. The dissection is carried back to beneath the anterior border of the trapezius and terminated at the hyoglossus as in the preceding operation. Even this extensive procedure requires only about three quarters of an hour if it is not complicated by adhesions. Generally it is well borne by the patient in spite of its severity and the wound heals by first intention.

AUDREY G. MORGAN, M.D.

SURGICAL TECHNIQUE

OPERATIVE SURGERY AND TECHNIQUE POSTOPERATIVE TREATMENT

Koont A R D ad (P eserved) Fasci Grafts
J 4 W 1 o 1 3

Nageotte has made some interesting observations concerning the place after the implantation of living and dead grafts. In the case of living grafts he noted the following phenomena: (1) the attachment of the graft to that of the host; (2) the ingrowth of fibroblasts; (3) the establishment of the cell connection; (4) the third stage, the dead cell carries away and is replaced by living cells from the host. The final result is a definite scar.

Koontz concludes that since living grafts could be used for the treatment of facial paralysis and might be of value in the repair of lacerations and ulcers, he has been unable to find enough factors for their use. Regarding the defect in the skin, he has been unable to deal with alcohol preparation of the skin.

The experimental clinical results obtained with grafts of dead fascia suggest that this material may be used not only in the repair of hernia but also in such procedures as separation of the sternum, the capsules of the elbow, the peritonsillar abscess, the defect in the skin, the defect in the skin, the defect in the skin.

It appears that the ordinary absorbable sutures material used in the skin occurs in the absorption of the suture material. The absorption of the suture material is a process of sutures which have a permanent living bond of the suture in place of the suture. When alcohol preparation of the fascia is employed as a suture material this end result is a certainty that it is obtained more quickly because the skin is not absorbed. M. R. H. K. 1914 M.D.

ANTISEPTIC SURGERY TREATMENT OF WOUNDS AND INFECTIONS

Leonard V. and Feler W. A. Hexylresorcinol as a General Antiseptic. *S. G. Gy. & Obs.* 1927 163

A general antiseptic for the treatment of the skin should be chemically stable, non-toxic, non-irritating, rapidly bactericidal, highly penetrating, and unaffected by organic matter. Other properties which are desirable though not essential are freedom from staining action and from an objectionable odor.

As a rule increased germicidal power is associated with increased toxicity and irritating properties.

The alkyl resorcinols however are unique exceptions to this rule as the great increase in germicidal power associated with each increase in the number of carbon atoms in the alkyl chain is accompanied by no increase whatever in toxicity to laboratory animals and the irritant properties of the successive compounds are decreased.

Hexylresorcinol the most powerful member of this series according to the United States Hygienic Laboratory method of measuring germicidal values has a phenolic coefficient of 7. Moreover it is a stable chemical compound since aqueous solutions retain their bactericidal activity after months of standing at room temperature. That it is so potent is evident from the fact that it can be administered in large doses (6 gm. three or four times daily) for a year or more without causing a toxic effect. It is absolutely devoid of irritant properties.

Investigation has revealed also that hexylresorcinol is an extremely powerful surface tension reducer and that its rate of diffusion is unusually high. It has therefore marked penetrating power and will extend into minute crevices and interstices. Glycerine added in proportion insures a perfect solution and a rapid action.

The solution finally chosen by the author as best meeting the requirements consists of glycerine 30 per cent and water 70 per cent in which dissolved 1 mgm. of hexylresorcinol per cubic centimeter.

The bactericidal action of this solution is very rapid. Even in a dilution of 1:100 the solution retains sufficient bactericidal power to destroy the bacteria in less than fifteen seconds. It may therefore be diluted to a considerable degree for purposes of irrigation. The presence of organic matter does not interfere with its bactericidal properties.

The solution is usually employed in full strength on the skin in fresh cuts and abrasions, on granulating surfaces in abscesses and sores, and is used in the ear, nose, throat, and mouth. It is used in the bladder and renal pelvis to sedate the one or two parts of the tract. Diluted solutions may be used in the normal conjunctiva.

The solution is as clear as water and odorless. It does not attack any of the heavy metals.

WILLIAM E. SHACK, M.D.

K. H. R. A. The Treatment of Actinopurulent Inflammation with the Roentgen Rays (D. B. H. G. L. K. L. T. E. T. Z. H. F. Ch. 9 539)

In inflammation of the sweat gland of the axilla especially in paronychia and lymphangitis but also in

phlegmons carbuncles erysipelas puerperal mastitis and small inflammations of the soft parts roentgen ray irradiation has been found in 80 per cent of the cases to give much better results in a surprisingly short time than any other treatment. The dosage used by the author usually ranged from 4 to 5 per cent of the skin erythema dose and never exceeded 25 per cent of the latter amount. In the majority of cases a normal dose of from 75 to 80 R was given. When it was especially desirable to avoid a stormy reaction a dose of 4 per cent was given at first and increased to the normal dose after a few days. Irradiation was always done with hard filtration (0.8 mm. of copper plus 2 mm. of aluminum) and a skin target distance of from 35 to 50 cm.

In inflammations of the sweat glands of the axilla three or four irradiations of the same strength were given. For provocative purposes in the differential diagnosis of inflammations of the glands of the neck the joints and the bones irradiations were carried out according to the procedure of Freund 200 R being applied to the area.

The therapeutic irradiation should be given in the beginning of the stage of exudation. It does not alter the nature of the inflammatory or breaking down process but hastens the subsidence of the inflammation. At the proper time the softened areas must be opened with the knife. In the exudative stage of the inflammation the pain malaise and fever soon cease after the irradiation. In the stage of abscess formation there is usually at first an increase in the swelling and pain which necessitate early incision. In cases of rapidly swelling phlegmons the malaise ceases after a few hours and very often the fever also subsides. The pulse however may remain rapid and when this is the case the local condition is unchanged and opening of the abscess is necessary. Unlike the pus in the cases of Heidenhain and Iried that in the author's cases was usually not sterile.

For stiff walled cavities with a purulent exudate and for empyema of the large joints irradiation is of no avail. In inflammatory conditions of the bones joints and tendon sheaths it is not advisable.

The increase in the severity of the signs of the inflammation immediately after irradiation is attributed by the author to an increase in the hydrogen

ion concentration. This increase is followed by a decrease over a period of days the results of which are indicated by a diminution in the amount of the exudate the infiltration of leucocytes and cessation of the pain. In Kohler's opinion the marked destruction of leucocytes caused by the irradiation frees non specific antibodies (proteolytic ferments) which instead of entering the blood stream build a serological wall around the inflamed area.

HINTZ (Z)

ANÆSTHESIA

Lepoutre C. Permanent Nerve Disturbances Resulting from Spinal Anæsthesia (Des accidents neux légitimés de la raianesthésie) *Bull et Mé Soc d'Anesthésie* 1927 111 456

A patient consulted the author on account of incontinence of urine and anæsthesia of the perineal region following an operation for right inguinal hernia under spinal anæsthesia. In Lepoutre's opinion spinal anæsthesia may sometimes result in permanent nervous disturbances. Before the anæsthesia can be blamed however syphilis tuberculosis and nervous diseases must be ruled out.

In some cases there may be paralysis of the lower limbs with incontinence of the sphincters or disturbances limited to one nerve center or root. In others the phenomena may be due to extradural hæmorrhage which compresses nerve centers. Such disturbances are rare and the result of the puncture rather than the anæsthesia. As a rule the complications are attributed to an irritant action of the anæsthetic and vary with its nature and concentration. Sometimes the lesions are so strictly localized as to suggest injury of a nerve center or bundle of fibers by direct puncture destruction by a hæmatoma or dissociation by the intravenous injection of the anæsthetic. In the author's opinion this was the pathogenesis in the case reported.

In spite of the possibility of such complications spinal anæsthesia is indicated when it will improve the prognosis of the operation. As a precaution the injection should not be made until the spinal fluid is flowing normally showing that the needle has been correctly inserted.

AUDREY G. MORGAN M.D.

PHYSICO-CHEMICAL METHODS IN SURGERY

ROENTGENOLOGY

Pfeiffer G. The Importance of Vascular Permeability in the Therapeutic Use of Roentgen Rays and Radium in Malignant Disease. 1919, 33.

A clinical observation and the results of recent experiments have suggested to the author a new theoretical explanation of the healing of tumor following irradiation. The clinical lesion was an epithelioma of the larynx, part of the organism which is described in detail. The lead to the deduction that the vascular system plays a role of first importance in the phenomena of healing and that the curative effect of irradiation is brought about by a change in the permeability of the vessels. It seemed probable that the healing was produced directly by a transformation of metastasis either by the physical production of immunization by the roentgen rays or by actual immunity which became activated following the edipmability of the blood vessel.

The hypotheses are compared with experimental facts established by a university investigator with regard to the permeability of immunity in epithelioma of the capillaries, microscopically (the relative vitality of the cancer and the important studies of Warburg on metabolism). The author attempts to prove that the findings of these different but verifiable tenets to confirm the conclusion that the erythema dose which produces the healing of cancer is the effect of increasing the permeability for certain protective substances.

A result of his studies Pfeiffer believes that the immediate taking of the peptic technic should be (1) the giving of a low fermenting and radium compounds to a hyperemia and increase of the vascular permeability, (2) the application of the produced lesions in the field of all which might enter them, (3) the application of the subsequent radiation in the field of the healing and (4) the subsequent combination of radiation with the administration of substances capable of stimulating the growth of the tumor, (5) the binding of the tumor to the neutralization of the gastric hydrochloric acid and alkalies to the point of alkalization of the urine.

The peculiar activity of roentgen rays and of radium gas is precisely the same in the case of a cancer, all explained by the ability of these agents to raise the cellular permeability for a considerable period and then a marked tendency without producing any effects of a harmful nature. Thus a sumption plan in the use less effect of radiotherapy when the tissue adjacent to the

tumor do not pass blood vessels when a new formation of capillaries with the tissue is made impossible by natural or pathological conditions and when previous irradiations have produced an irreparable impermeability of the vessels.

ADOLF HARTUNG M.D.

Pfeiffer G. E. and W. Mann B. P. The Value of Intravenous Injections of Dextrose in Radiation Therapy of Malignant Disease. 1919, 49.

The authors were led to make investigations with the intravenous injection of dextrose in connection with a treatment of malignant disease by a communication from Holmkecht and Mayer in which it is stated that tumor tissue seemed to be rendered more sensitive to radiation when the latter was combined with intravenous injections of a hypertonic solution of dextrose. The clinical improvement as expected by the authors seemed to be factually demonstrated and that the dextrose solution seemed to decrease the intensity of the so-called cytotoxic effect of radiation. This treatment as based on general biochemical and clinical observation of various investigations which demonstrated a close relationship between carbohydrate metabolism.

The method used by the authors is as follows. The electrolyte of the character and solution of the solution. Both high and low voltage technique as used by the radiation method of Pfeiffer as a suitable case of adenoma of the prostate. In this study of the cases freshly prepared 33 percent dextrose solution was injected in quantities of 100 cc before the roentgen ray or radium treatment but in a group of cases the injection of 50 cc of dextrose solution immediately after the treatment. After the second radiation the dose was self-selected 50 cc and then rapidly brought up to 100 cc. In these cases 250 cc of dextrose solution in even instances daily injections of 50 cc of dextrose solution were given for 10 days following the radiation.

In the following cases it is noted as the case of improvement in the treatment of the prostate with the use of radiation. While the dose of dextrose seemed to meet the symptoms of the radiation, the cases of improvement in the effect of the treatment were lost in the treatment. However, a relief was directly noticeable and permanent in a few instances. The author believes that intravenous injections of dextrose are just as necessary as which the patients discussed in my paper interfere with the treatment of radiation.

ADOLF HARTUNG M.D.

MISCELLANEOUS

CLINICAL ENTITIES—GENERAL PHYSIOLOGICAL CONDITIONS

Campbell M F The Etiology of Granuloma Inguinale with a Report of Eighteen Cases *Am J M Sc* 97 clxiv 670

Granuloma inguinale has been definitely established as a clinical entity. It is a disease to which negroes seem to be predisposed, whites are rarely attacked by it. It is most common in the subtropics but the authors have seen it in persons who have never been outside of New York.

It begins as a small moist papule located usually in the genital or perigenital regions. This papule undergoes progressive ulceration. The condition seems to be transmitted by clothing and friction. It is in no sense a venereal disease. There is a notable absence of pain and adenopathy.

Granuloma inguinale must be differentiated from chancre, chancroid, gumma, tuberculosis and malignancy.

It was first described by Convers and Daniels in 1893. Its etiology is uncertain. Convers and Daniels thought it to be tuberculous and others have classified it as luetic. In 1903, Donovan described peculiar ovoid inclusions within the large mononuclear cells present, to which his name has been given. Donovan believed that these bodies were of protozoan origin and the etiological factors of the disease. From direct transplantation of infected tissue to a healthy individual and the isolation of Donovan bodies from the new lesion, McIntosh arrived at the same conclusion. While these bodies may have been the cause, the transplantation of a tissue *en masse* precludes any conclusions as to their specificity; other organisms as yet not isolated may have been transplanted at the same time.

The Donovan bodies are isolated by Sabouraud's medium (4 per cent maltose peptone agar). When once isolated they grow well on the more common laboratory media. They range in size from 1 to 5 micra. The smallest have the appearance of cocci. The largest are ovoid or oblong. Pleomorphism is characteristic. They do not form spores and are not motile.

In order to determine the specificity of the organism, the author made direct inoculations of twenty-four hour cultures into guinea pigs, rabbits, monkeys and human beings. In no instance did these inoculations produce a lesion characteristic of granuloma inguinale but in all cases there were formed superficial abscesses from which Donovan bodies were isolated as early as the first week.

Fartar emetic (potassium antimony tartrate) given intravenously in a 1 per cent solution is a specific remedy. As a rule the treatment is begun

with 2 c cm of the 1 per cent solution and the dose is increased by 1 c cm every other day. Rarely has it been necessary to give more than 10 c cm at one time. The improvement in the lesion is as striking as that observed in superficial luetic manifestations under treatment with arsphenamine. The injections should be continued for some time after the apparent cure of the disease, as relapses have been known to occur when they were discontinued immediately after the disappearance of the lesions.

MARSHALL DAVISON MD

Coley W B The Prognosis and Treatment of Giant Cell Sarcoma *Ann Surg* 197 lxxvii 641

This article is based on a careful follow up of fifty cases of giant cell sarcoma of the long bones reported in November 1923 and nineteen additional cases observed since then.

Coley states that while the majority of giant cell sarcomata are benign or only locally malignant there are a certain number which give rise to metastases and generalization of the disease. In the early stages of the condition it is quite impossible to differentiate the malignant from the benign. In the first series of fifty cases of giant cell sarcoma of the long bones in which a diagnosis was made by competent pathologists there were ten deaths from metastases. Collected records of the New York Presbyterian and Bellevue Hospitals show the same incidence of malignancy in cases diagnosed as giant cell sarcoma. The malignant nature of some of these cases has been reported also by numerous observers.

The usual method of treating giant cell sarcoma is curettage followed by the use of carbolic or zinc chloride. Haemorrhage is a serious complication. The treatment of the cavity is unsettled. Some surgeons follow Bloodgood's method of packing the cavity while others try to close the wound completely. Coley packs whenever necessary and keeps the wound clean with Dakin's solution.

In addition to curettage and the application of carbolic or zinc chloride to the cavity, the injection of mixed toxins of erysipelas and bacillus prodigiosus for a period of three or four months greatly lessens the chances of recurrence of the disease by destroying whatever cells have been left behind. When the toxin is used for prophylaxis only small doses are given, just enough to cause a mild reaction.

There is an increased tendency on the part of surgeons to turn all cases of bone sarcoma, especially giant cell sarcoma, over to the radiologist but the number of cases treated by radiation is still too small and the period of observation is still too short to permit the conclusion that radiation is the method of choice. Disadvantages of radiation as the pri-

BIBLIOGRAPHY of CURRENT LITERATURE

NOTE—THE BOLD FACE FIGURES IN BRACKETS AT THE RIGHT OF A REFERENCE INDICATE THE PAGE OF THIS ISSUE ON WHICH AN ABSTRACT OF THE ARTICLE REFERRED TO MAY BE FOUND

SURGERY OF THE HEAD AND NECK

Head

Abnormally large foramina parietalia D M GREIG
Edinburgh M J 9 7 x xiv 629

Fractured base of skull I HELLER and M M SIMON
Med J & Rec 927 c x i 543

Tyroid interesting skull tumors encroaching on the intra
cranial space H DASPIT Med Clin N Am 19 7 vi
675

Osteomyelitis of the frontal sinus J I AYALA and C
MARENCO Semana méd 1927 xxiv 1116

The technique of roentgenography of the orbit C
DUNOVAN Arch a gent de neur 1927 24

Recession of the facial scoliosis in wry neck WALTER
Zentralbl f Chi 92 liv 47

Functional restoration in the repair of facial injuries—
the value of color photography in this work J E SHEE
Irish J Med Soc N Jersey 1927 xxi 6 8

Facial traumatism: the scope and treatment of anorectal
fistula BLANC and FORTICA Med Ibera 19 7 xi 26

Intestinal fistula—compiled from the periodical literature
I F HETRICK J Ophth Otol & Laryn of 1927 xxxi
387

Salivary calculi C CARROSSINI Sperimentale 9
1c 399

Sarcoma of the right parietal GROVE SCHONHERR
BORRILLA LICENCIADO GUESALACA Bol Soc de
Cirug de Chile 19 7 v 195

Calculation of the tonsillectomy I RAYO Bol Soc de
Cirug de Chile 1927 v 8

Some considerations relative to the organization of a
maxillofacial surgical society WATRY Arch méd
1c 9 7 lxxv 457

Chronic hyperplasia of the upper jaw I B GILLESPIE
J Laryn l & Otol 19 7 xli 21

Prostheses for the inferior maxilla R FIORELLI
and A CANAVE Semana méd 19 7 xxvii 534

Clinical and statistical study of malignant tumors of
the jaw I RI AK Arch f klin Chi 927 cxlvii 162

The teaching of ophthalmology to medical students
I J C MITCHELL M d J Aust alia 9 7 Supp 2 363

Photomicrography of the living human eye L D REED
Internat J Med & Surg 1927 xl 445

The nutrition of the eye A KADOS Arch Ophth
19 7 li 567

Ocular disorders in deficiency diseases F H ADLER
Arch Ophth 19 7 li 593

Injuries to the eye W W POTTER Internat
J Med & Surg 19 7 xl 454

The immediate cause of eye injury D V MIFIALEJOHN
J Lancet 1927 cxliii 593

A case of monocular diplopia T H BUTLER Brit J
Ophth 92 xi 563

The relationship of unimpairment of glasses W A STEVENS
New Orleans M & S J 1927 lxxv 2 9

Tschernin's photometrical glasses W A WILLE
Brit J Ophth 19 7 vi 504

Ocular pathology of the newborn W D ROWLAND
Am J Ophth 1927 35 x 824

Sympathetic ophthalmia with the report of two cases
C LUKENS Ohio Stat M J 1927 xxvii 9 5

Ocular pemphigus G M CONSTANT Am J Ophth
1927 35 x 810

Anterior ocular tube colitis C S DERRY and M
CARVILL Arch Ophth 1927 li 523

The treatment of the common syphilitic lesions of the
eye J G HARRIS Arch Ophth 19 7 lvi 543

Theliosis of the eye and its adnexa in man H J
HOWARD Am J Ophth 92 35 x 807

Optic atrophy following retrobulbar neuritis H NEAME
Proc Roy Soc Med Lond 927 1 0

The cases of progressive amaurosis of the retinal
origin recovery of vision with foreign protein treatment
J WOLFF and J H CLARKE Arch Ophth 1927 li 576

One thousand optical canal clinic anatomical and
roentgenological study H A GOWLIN J Am M Ass
92 lxxvi 745

Two cases of granuloma invading the orbit due to an
aspergillus R I WRIGHT Brit J Ophth 19 7 vi 545

Stereophotography of the anterior eyeball and fundus
R VON DER HEYDT J Am M Ass 1927 lxxvii 672

Removal of a No. 6 lead shot from within the eyeball by
specially designed forceps with the aid of the double plane
fluoroscope G H CROSS Arch Ophth 19 7 li 564

Substitute operations for enucleation of the eyeball with
special reference to an autochthonous cat's eye transplant
T GARRETTSON J Michigan State M Soc 1927 xxvi
645

Investigations on the cause of glaucoma I P FORTIN
Semana méd 1927 xxvii 663

How primary glaucoma may arise from disturbances in
the physicochemical processes which regulate the intraocular
fluid exchange I H WATTE Arch Ophth 1927 lvi 552

The relation of cupping of the optic disk to the visual
field in glaucoma H V WERDEMAN Am J Ophth
1927 35 x 831

Diagnosis of squint W D ROWLAND J Ophth Otol
& Laryngol 19 7 xxv 373

The management of strabismus I POTT J Mouri
State M Ass 1927 xlv 496

The upward movement of the eyes I BRANWELL
Proc Roy Soc Med Lond 927 xvi 93

Lachrymal obstruction at nasal origin and intranasal
treatment I H DREGLE Brit M J 927 ii 933

Eye

The teaching of ophthalmology to medical students
I J C MITCHELL M d J Aust alia 9 7 Supp 2 363

Photomicrography of the living human eye L D REED
Internat J Med & Surg 1927 xl 445

The nutrition of the eye A KADOS Arch Ophth
19 7 li 567

Ocular disorders in deficiency diseases F H ADLER
Arch Ophth 19 7 li 593

Injuries to the eye W W POTTER Internat
J Med & Surg 19 7 xl 454

The immediate cause of eye injury D V MIFIALEJOHN
J Lancet 1927 cxliii 593

Ocular manifestations of diseases of the paranasal sinuses M E BROWN Radiology 1927 ix 413

The diagnosis of sinus disease L F DALGHTRY Clin Med & Surg 192 xxxiv 840

Röntgen diagnosis of nasal sinus disease H J ULLMANN Radiology 1927 ix 408

Vertigo secondary to paranasal sinus infection W A CASSIDY Nebraska State M J 19 7 vii 4 7

The surgical diagnosis of paranasal sinus disease J P HUME Radiology 9 7 ix 415

The ethmoidal and sphenoidal sinuses as sources of focal infection W D SANSON Radiology 927 ix 40

Observations on infections of the maxillary sinuses J B NAFTZER J Iowa State M Soc 927 vi 401

Mouth

The importance of oral sepsis in medical pathology M J BARILARI and M CASTELLINO Rev méd Lat Am 192 xii 1871

Albrecht and Ulzer's halo in solution in stomatology and dentistry G KRONENFELS Ztschr f Stomatol 1927 xv 386

Focal infection of dental origin J PONS Med Ibera 1927 xi 67

Pyoheal and associated conditions M H BIGGS South M & S 19 ix 1 783

The radical surgical treatment of parodontitis (alveolar pyorrhea) R NEUMAN 19 7 Be lin Stille

On chronic fusospirillary infection of the periodontal membrane and its treatment F N DOUGLASS Proc Soc Med Lond 1927 vi 139 [176]

Trench mouth and antitoxin G W DAVIS J Kansas M Soc 9 7 ii 374

Should extraction of teeth end our search in the jaws? M N FRANK J Michigan State M Soc 9 7 xvi 671

Necropsy reports on persons dying shortly after the extraction of teeth F C BUCKLEY J Am M Ass 1927 lxxvii 1776

Harelip R A SHANK J Med Cincinnati 19 7 iii 434

A number of congenital deformities (cleft palate) LICHTOFF Zentralbl f Chir 9 liv 2147

The preoperative and postoperative treatment of cleft lip and cleft palate B HOVER J Med Cincinnati 1927 iii 438

Operation for cleft palate W DELBER Arch f Klin Chir 1927 cxlvi 430

The surgical correction of cleft lip and cleft palate G B JOHNSON Arch Otolaryngol 19 7 v 434 [176]

Discussion on the treatment of cleft lip by operation SIR J BERRY Internat J Med & Surg 1927 I 433

The importance of pediatric care in the operation treatment of hard lip and cleft palate J A HENSKE J Am M Ass 19 lxx 666 [166]

Infiltrations of lymphatic cells and a neoplasm of the lymphopoietic centers in the solution of epithelioma of the tongue R CALVANO Acta chirurg Scand 19 lxxi 276

Some phases of intraoral tumors with special reference to treatment by radiation J EWING Radiology 19 7 ix 359 [177]

Radium in intraoral cancer C F BURMAN Radiology 19 7 ix 366 [177]

The cervicoclymph nodes in intraoral carcinoma J J DUFFY Radiology 9 7 ix 373 [177]

Surgery in cases of intraoral cancer L S JONES and G B NEW Radiology 1927 ix 380

Pharynx

The tonsil question F STOKER Lancet 19 7 cxxiii 1 25

Tonsillectomy with nitrous oxide oxygen anesthesia M PRICE California & West Med 1927 xxvii 656

An instrument for placing sutures in the tonsillar fossae and other deep cavities B H SHUSTER Arch Otolaryngol 9 7 i 446

An easy tie for the tonsil ligature W A WELLS South M J 1927 xx 84

An unusual case of septicæmia in a child following removal of the tonsils J G FRENCH J Laryngol & Otol 9 7 ii 754

Pharyngeal oesophageal diverticula S EVERINGHAM Sug Clin N Am 1927 vii 1343

Lipoglotteal tuberculosis diagnosis and treatment F R SPENCER Arch Otolaryngol 192 vi 4 3

Neck

Notes on the basal metabolism A simplified data blank for the gasometer gas analysis method W H STONER J Lab & Clin Med 1927 viii 64

The conditions under which iodine will cause a change in the basal metabolic rate in man I Its occurrence in conditions other than that of Graves disease K A MURRAY Am J M Sc 19 7 clxiv 648 [177]

A case of bilateral accessory thyroid G J MORRIS Irish J M Sc 9 p 65

Aberrant thyroid tissue A H TEBBUTT and V R WOODHILL Med J Australia 19 Supp 12 358 [178]

The quantity of iodine in the human thyroid in various localities in Italy L CASTALDI Riforma med 19 7 viii 946

The constitution of thyroxine C R HARRINGTON Brit M J 19 ii 86

Thyroid A B BROWER Ohio State M J 9 7 xiii 907

The condition of the thyroid in malaria infection D MASSELLI Polon Jome 19 xxiv s 2 med 4

Hypothyroidism in childhood F E years M I HARRISON South M J 19 7 xx 830

Gout prophylaxis and its results so far A OSWALD Sehnsucht med Wehnschr 1927 lvi 73

The relation of gout problem J M EMMETT Internat J Med & Surg 19 7 xl 450

Gout in Spain and its pathogenic conditions G MARANOV Med Ibera 1927 vi 36

Gout and pregnancy J R DRYAN Canadian M Ass J 9 7 vi 1355

The field of usefulness of iodine in gout A F JENNINGS and S W WALLACE Endocrinology 9 7 xi 43

Xanththalmic gout A A MATTHEWS Sug Clin N Am 1927 vi 7

The diagnostic value of the ocular syndrome in Flaján Basedow's disease A FERRANINI Riforma med 1927 vi 83

Prolonged treatment of hyperplastic toxic goiter with Lugol's solution a method of handling of suppuratively inoperable toxic goiters S I CALDWELL Sug Clin N Am 9 7 vii 1275

The diagnosis and surgical treatment of toxic goiter A S JACOBSON Colorado Med 1927 xvi 331

Xanththalmic goiter and the involuntary nervous system VI The influence of subtotal thyroidectomy with and without compound solution of iodine on the course of the disease L KESSEL and H T HYMAN Arch Int Med 1927 xl 623

Three cases of facial paralysis with otitis media in one family A LEWY J Ophth Otol & Laryngol 1927 xxxi 377

Schwannoma of the auditory nerve G OROSCO Rev Soc argent de biol 1927 iii 513

Peripheral Nerves

Two cases of neuroma J H ROBINS Lancet 1927 cc iii 1074

Recklinhausen's disease F PETIT Bol Soc de chirug de Chile 1927 v 159

A lesion of the brachial plexus due to a cervical rib I O ZENO Semana med 1927 x iv 992

Intercostal neuralgia R I PRAV J Lancet 1927 xl ii 55

Phrenectomy R B BETTMAN Illinois M J 1927 lii 374

The late results of bilateral phrenicotomy F CURTI Policlin Rome 1927 xxxv sez p at 144

Sympathetic Nerves

Histologic evidence on the presence of sympathetic nerve endings in stated muscle fibers O LATIRAU Med J Australia 1927 Supp 14 433

The thoracic portion of the sympathetic nervous system and its clinicosurgical significance W BRAEUCKER Beitr z Klin d Tuberk 1927 lvi

The abdominal sympathetic and parasympathetics G C PERACCHIA Clin Lab 1927 viii 69

Surgical operations on the sympathetic nerve SCHWITZ Med Wchnchr 1927 lvi 783

The treatment of painful syndromes and cervical sympotomies ICHIK Arch de med chirug y especial 1927 viii 39

Operation for bronchial asthma KROLL Zentbl f Chir 1927 liv 183

Do surgical methods of treating angina pectoris offer hope for success? E SPIEGEL Wien klin Wchnchr 1927 xl 853

The superior cervical sympathetic ganglion in an anaplastic carcinoma study S I CLARK J Lab & Clin Med 1927 viii 101

Spastic paralysis S V SWELL Med J Australia 1927 Supp 14 49

Spastic paralysis H R G POATE Med J Australia 1927 Supp 14 431

Spastic paralysis T W LINSKOMB Med J Australia 1927 Supp 14 43

The results of periaarterial sympathectomy according to an inquiry made among surgeons of Russia in 1926 S ROUBINOFF Le de chir Par 1927 xl i 341 [181]

New concepts on the etiology and treatment of sciatica J VALLS Rev oto neuro oftalmol y de cirug neuol 1927 i 160

Intraarterial sympathectomy with ligation of the femoral vein in the treatment of diabetic gangrene R BROOKS Practitioner 1927 cxix 3

Periaarterial sympathectomy for femoral claudication A C MORGAN Atlantic M J 1927 xxx 69

The surgical treatment of Raynaud's disease and similar conditions N D ROLEY Med J Australia 1927 Supp 14 341

Miscellaneous

Simulation of decerebrate rigidity in topatetics C J KELLY Am J Syphilis 1927 xi 32

Observations on a case of acromegaly D LIOTTA Ifo ma med 1927 xliii 942

Consideration on a case of acromegaly gigantism I RODRIGUEZ ARTAS Arch de med chirug y especial 1927 viii 253

Cerebrospinal fluid pressure mensuration methods and a new instrument E S KILGORE J Am M Ass 1927 lvi 186

Some observations on the emanation of the cerebrospinal fluid O LATIRAU Med J Australia 1927 Supp 14 332

Malignant C L HARTSOCK J Am M Ass 1927 lxxix 143

The surgical treatment of the gastrointestinal crises of tabes F STEIN Deutsch f Chir 1927 ccv 111

The treatment of neurosyphilis J I MCCARTNEY Am J Syphilis 1927 xi 550

The nervous system and postoperative hemorrhages with particular reference to hysterical ecchymoses and the classification of hemorrhagic diatheses R SCHINDLER Abhandl d Neuol Psychiatr u Psychol u ihren Gengeb 1927 lii 1

Alcohol in nerve surgery W I KASIMOWSKY Arch f klin Chir 1927 cdi 389

SURGERY OF THE CHEST

Chest Wall and Breast

Cold abscess of the subcostal region of peripneumonia D TADDEI Policlin Rome 1927 xxiv ez prat 75

The pathology and the modern operative treatment of the pleural cavity I GLAESNER and F AILERSBUCH Munchen med Wchnchr 1927 lxxv i 7

Lipoid tumors of the breast SEBASTIAN Zentrbl f Chir 1927 lvi 1054

Leiomyoma of the breast H SCHWABER Deutsche Ztsch f Chir 1927 cv 58

Angioma of the nipple: not a simple precancerous dyskeratosis but a true epidermotrophic carcinoma requiring early and complete removal of the breast F M PATRIER G Livi and A Disfrese md Par 1927 xxv 993 1041 [182]

Cancer of the breasts and of the uterus J LE BERRA Semana md 1927 xxxv 913

Preoperative radiations in cancer of the breast C BUIZARD Bull et mem Soc d chirurgien de Par 1927 xi 484

Radical amputation of the breast done exclusively with the cautery report of three cases J T MASON Surg Clin N Am 1927 vii 13

The treatment of cancer of the breast by X-rays after operation II ISFLIN Proc Roy Soc Med Lond 1927, vi 53 [182]

The results of operation for carcinoma of the breast W C WHITE Ann Surg 1927 lxxvi 695

Rare tumors of the female breast (lymphosarcoma spindle cell sarcoma) W TIRNER Arch f path Anat 1927 cclv 96

Trachea Lungs and Pleura

Reverse tracheotomy (an original method for rapid tracheotomy with a new instrument) M J MANDL Bull Laryngoscope 1927 xxxvii 8 [183]

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum

- Paralysis of the abdominal musculature J REY Zen
tralbl f Chir 19 6 lii 2651
- Adenoma of the umbilicus A J PALMÉN Acta
chirurg Scand 9 7 liii 310
- Adenomyco is of the umbilicus R KOEHLER Zentralbl
f Gynaek 9 7 li or
- Hernia in relation to industrial surgery H S MCKAY
J Missouri State M Ass 19 7 xiv 500
- Two cases of ectasia abdominis congenita O SCHTIBEL
Acta obst et gynec Scand 19 vi 329
- Right in umbilical hernia following appendectomy G
GRUDANO Riforma med 92 xliii 961
- A case of bilateral testicular hernia G B MACVIGI
Arch tal di chir 1927 xx 347
- Obturator hernia C F MORINE Ann Sug 192
lxxvii 776
- Recurrences following herniotomy by the method of
HACKENBRUCH MUELLBAUER Muenchen med Wchnsch
19 7 lxxi 1093
- Observations on the prevention of postoperative per
itonitis and abdominal adhesions H L JOHNSON Sug
Syn c & Obst 927 li 612
- Primary streptococcus peritonitis in children J
SCHWARTZ Surg, Gynec & Obst 9 7 xlv 590
- Statistics of tuberculous peritonitis from the clinical
record of the University of Nebraska Hospital W W
HILKEMANN Nebraska State M J 927 xli 49
- Therapeutic pneumoperitoneum in the exudative form
of tuberculous peritonitis T LUCHEINI Polichin Rome
9 7 xxvi sez prat 8
- Talaremic peritonitis S C FULMER and M J KILBURY
J Am M Ass 19 7 lxxix 1661
- Cholic acid intoxication in biliary peritonitis E
MELCHIOR and L WISLICKI Zentralbl f Chir 1927 liv
1922
- The so called gas peritonitis K MICHEJD Zentralbl
f Chir 1927 li 1871
- The symptoms of perforative peritonitis in diabetes
F MELCHIOR Zentralbl f Chir 19 li 000
- The symptoms of perforative peritonitis in diabetes
F IRANKE Zent albl f Chir 9 7 liv 201
- The treatment of perforation peritonitis with ether A
SCHLESSELER Muenchen med Wchnsch 19 7 li 1
00
- The treatment of purulent peritonitis with bacteria free
bacillus-coli and mixed culture filtrates A KJTINGER
Wien klin Wchnsch 927 xl 997
- Torsion of the great omentum R BROWN Sug Clin
N Am 1927 vii 6
- Chronic fibrous epiploitis R C B MANSSELL Irish
J M S 1927 p 674
- Omental adhesions at the hepatic flexure and gall bladder
de A S LONINGER Sug Clin N Am 1927 iii 91
- The result of omentopexy in a man with chronic
ascites from hepatic cirrhosis I P WEBER Proc Roy
Soc Med Lond 1927 xvi 84
- Voluminous multicellular mesenteric cysts V ALLOI
Kufmana med 1927 liii 000
- Cyst of the meso-igmoideum B ILKIN Semanamed 9 7
xliii 04

Gastro Intestinal Tract

- The position of the gastro-enteric junction F E
DIEMER Northwest Med 192 x 512

- The diagnosis and medical treatment of gastro intestinal
ptosis A ROCCAVILLA Riforma m d 19 7 xliii 990
- Some interesting points in digestive pathology A C
PRETTO Med Ibera 1927 xi 355
- The evaluation of a gastro intestinal report P M
HUCKLEY Minnesota Med 1927 v 682
- The diagnosis of gastro intestinal disease A L SEVER
Eior J Lancet 1927 xlii 521
- An outbreak of gastro enteritis a milk borne epidemic
at Dye sburg Tenn caused by salmonella supestifer
H C STEWART and W LITTERER J Am M Ass 1927
lx xiv 1534
- The oxygen content of the venous blood of the dog after
upper gastro intestinal tract obstruction R I HADEN
and T G ORR J Exper Med 927 xlii 709
- Rambles in the field of gastro intestinal therapeutics
W A BASTERO N York State J M 19 7 xxvii 1173
- Foreign bodies in the stomach O ORMAT Zentralbl f
Chir 9 7 liv 615
- An open safety pin in the stomach: then point down
ward in the oesophagus removal S IGLAUER Laryngo
scope 19 xxxvii 839
- Auto expulsion of a foreign body from the stomach
H B ORTON Laryngoscope 9 7 xxvii 839
- Non rotation of the stomach simulating spontaneous
hydropneumothorax L I HARRIS and B P STIVELMAN
J Am M Ass 1927 lxxix 836
- The treatment of gastropylor by resection B MARTIN
Zentralbl f Chir 1927 li 2003
- New experiences with gastroscopy R KORNISCH Arch
f Verd un skr 19 xli 63
- Cardiospasm H BRUNY Sug Clin N Am 1927 vii
95 [186]
- Cardiospasm W H SPRUNT JR South M & S
19 7 lxxix 78
- Spasm of the cardia and of the pylorus O CLARA
Folia med 1927 viii 15
- Control of the pylorus C B WRIGHT and G MEDES
Minnesota Med 19 7 v 678
- Chronic pyloric stenosis F C BUNTS Med J &
Pec 1927 cxx 164
- The hypotonic infant with special reference to pyloric
obstruction J LAB WARD Arch Pediat 9 7 xlv 706
- Megalo astricta—chronic pyloric obstruction F A
TRUMP J kan as M Soc 1927 xxvii 363
- Chemical changes of the blood in two patients with
pyloric obstruction the effect of stomach washings
H A SALVESEN Acta med Scand 19 7 lxxvi 518
- On pyloric stenosis as a complication in choledithiasis
A TROELL Ann Surg 927 lxxxvi 758
- Pyloric hypertrophy in low compression of the duodenum
P T PANZA Sem na m d 927 xxiv 00
- Quantitative analysis of the gastric content M FIN
HORN Med J & Rec 1927 cxx 1625
- The gastric secretion due to histamine V DEBENE
DETT Polichin Rome 1927 xvi 1423
- The gastric secretion due to histamine GALLART MONÉS
VILARDELL and BABOT Arch de med eug y especial
1927 viii 273
- Gastric achlorhydria in a woman who was under obser
vation over nineteen years ago for grave anemia F I
WEBER Proc Roy Soc Med Lond 1927 xli 80
- Chromoscopy in gastric hyperchylia G FICO Rev
Soc de med interna y Soc de fisiol 1927 iii 242
- Gastric lues K HERMAN Wien klin Wchnsch 1927
xl 1009

A new method for subperitoneal drainage J B BACON
Surg Gynec & Obst 1927 xiv 66
The control of hiccup by inhalations of carbon dioxide
R F SIEDLON J Am M Ass 19 xxxix 1118 [196]

Avulsion of the diaphragm W A BRYAN Surg
Gynec & Obst 19 / 1 688

Eventration of the diaphragm J M BAMBER Med
Clin N Am 1927 xi 771
Diaphragmatic hernia W A MORRISON Surg Clin
N Am 1927 vii 1165
Inflammatory diseases of the diaphragm and the associated diaphragmatic syndrome M WICKER Arch Clin
Chn 192 cxlvi 809 [196]

GYNECOLOGY

Uterus

Prolapse uteri its etiology prevention and treatment
A B GREIN ARMYTAG Ind an M Cas 192 lxi (3)
The treatment of prolapse A M McARTHUR Med J
Australia 9 7 Supp 3 403

The operative treatment of uterine prolapse p an e
treatment of recto flexion A O HOLST Zentralbl f
Gynaek 1927 li 1843

The Kjelland operation for prolapse H KOELLER
Zentralbl f Gynaek 1927 li 2 80

The etiological study of prolapso of the uterus of complete prolapse in older women E HEVILL Deutsche
med Wchnschr 1927 li 138

A case of total aplasia of the uterus and vagina E
LINDQUIST Acta obst et gynec Scand 9 vi 337

Residue of a primary defect of the portio H HIRSHL
MANN Arch f Gynaek 1927 cxv 21

Uterosalpingoradiography C HILSER Semm a m d
1927 xxv 905

Abnormal contractility of the uterus after the injection
of lipiodol in certain cases A N JIRIST Arch f anco
belges de chir 1927 xxx 50

Taia and menorrhagia DALLAS Bull Soc d obst et
de gyn c de l'ar 1927 x 1 578

Traumatic abscess of the uterus SANA Arch diostet e
gynec 1927 xxx 351

The case of a focus in chronic disease C H MAIO
and C I DYON Minnesota Med 1927 x 6

The use of potassium sulfocyanide in the treatment of
cervical leucorrhoea C ASCHEN and O BOHMANN
klin Wchnschr 9 1 639

Adhesions in the cervix following curettage P GEINITZ
Zentralbl f Gynaek 1927 li 1 93

The clinical picture of anisotropy of squamous epithelium in
the cervical mucosa H HIRSCHMANN Monatsschr f
Geburtsh u Gynaek 9 7 lxxi 44

Endometritis GARCIA ORCIVAN Irog de la clin
Madrid 1927 vi 93

The relation of blood groups and tumor in the field of
gynecology G HERTZEL Pin ital d g e 192 1
365

A large cyst of the uterus K FUKUJIMA Zentralbl f
Gynaek 1927 li 238

Urinary retention in patients with uterine fibroma
J VAN ECKT Bull Soc d obst et de gynec de l'ar 1927
x 1 530

Two cases of so-called urinary uterine fibroma LEVE
BURE Bull Soc d obst et de gynec de l'ar 1927 xvi 573

Uterine fibroid after the menopause W T SHAW
Brit M J 1927 ii 919

The modern conception and treatment of uterine fibroids
C J MILLER Ohio State M J 19 xxv 599 [197]

Submucous fibroids and their treatment I W
LYNCH Am J Surg 1927 ii 480 [195]

Experiences in the treatment of myoma of the uterus
I P HARTMANN Acta obst et gynec Scand 1927 vi 304

A uterine polyp simulating a cancer of the corpus
subtotal abdominal hysterectomy followed by recovery
DAMBRIN Bull Soc d obst et de gynec de l'ar 1927
x 1 561

The question of the benign character of papilloma of the
uterus A SCHLICHTEL Zentralbl f Gynaek 1927 li
1 5

A case of lymphangioma of the uterus C KRENZER
1927 Munich Dissertation

A case of mole tuberosa (Bruce's mole) J V ANDERSEN
Acta obst et gynec Scand 1927 vi 293

Cancer of the uterus the opportunity of the family
physician in its control J C ITZENBERG Minnesota
Med 1927 x 64

The early diagnosis of uterine cancer A LENZI Riforma
med 1927 cxv 93

The first stages of development of cancer of the uterus
F E ERICSSON Riv ital di gynec 1927 x 347

A new case of pronounced inophilia in cancer of the
uterus A J BENGOLEA A J LAVLOVSKI and V
WIDSKOVICH Smana med 9 7 xvi 19

Cancer of the cervix H C PITTS Rhode Island M J
1927 x 63

Carcinoma of the uterine cervix H SCHMITZ Am J
Surg 1927 vii 494

Cancer of the uterus following an interposition operation
with a review of other reported complications J A
McGILVER Am J Obst & Gynec 1927 xiv 66

Carcinoma of the uterine cervix H SCHMITZ Am J
Obst & Gynec 1927 xiv 580 [198]

What a case does with cervical carcinoma K L
JOHNSTON J Iowa State M Soc 1927 xvii 40

Iodine administration in treatment of cervical cancer J
MYR Med J & Rec 1927 x cv 55

Iodine therapy in uterine cancer A J BENGOLEA and
A J LAVLOVSKI Semm a m d 19 xxiv 689

Examination of the blood of patients with carcinoma
of the uterine cervix during treatment with iodine
F LUD Strahlentherapie 1927 x 10 [198]

A case history contribution to malignant chorion
epithelium W IAHLE Med Klin 1927 xxvii 114

Hydatid mole and malignant chorionepithelioma
G I HIRSCHMANN 1927 Berlin Urban & Schwarzenberg

The importance of treatment of the cervical stump after
subtotal hysterectomy R CLEVER Bull Soc d obst et
de gynec de l'ar 1927 xvi 513

Some contraindications for hysterectomy J L I
ISBISTER Med J Australia 1927 ii 645

Adnexal and Peritubal Conditions

Pubic insufflation test M G SUTTON Med J
Australia 1927 ii 674

Sellheim and Mandelstamm's apparatus for tubal
insufflation R SCHWARZ and D CANTARRO Bol Soc
de obst gynec de Buenos Aires 1927 vi 350

Inflammatory diseases of the uterine adnexa A STEIN
Med J & Rec 1927 cxvii 592

- Hormonal sterilization of female animal with insulin I HABERLAND Med Klin 19 7 xviii 1023
- Observations on pseudo castrates II BILLETMYN Monatsschr f Geburtsh u Gynaek 19 7 ix 1 429
- Radiodiagnosis in gynecology ROYCE Bull Soc d obst et de gynéc de Par 19 7 xvi 559
- The roentgenological examination of the uterus and adnexa Riforma med 1927 xlii 898
- Lipiodol and X rays in gynecology HAMANT Bull Soc d obst et de gynéc de Par 19 7 xvi 535
- Sterility in the female I M J HELLMAN Am J Surg 19 7 iii 461
- Sterility in the female I D POTHMAN J Michigan State M Soc 19 7 xxvi 666
- Modern method in the investigation and treatment of sterility S R MEAKER Boston M & S J 1927 cxc 1
- Further advances in the treatment of sterility II SELHEIM Abhandl a d Geburtsh u Gynaek u ihren Grenzgeb 1927 1 1
- Sterility of the female the therapeutic value of tubal insufflation D E CENTINARO Semana med 1927 xxiv 1 40
- Menstruation and ovulation in monkey possible sufficiency for man G W CORNER J Am M Ass 19 7 lxxi 838
- Further studies on the action of metallic salts on the estrus cycle I the mouse A BUSCHKE a d L BEPMANN Muenchen med Wehnschr 1927 lxxiv 969
- Contribution to the test for menstrual blood I The action of menstrual blood on the seedlings of lupinus mutabilis Menotom and yeast fermentation K BOEHMER Deutsche Ztschr f d ges genchtl Med 9 7 x 43 449
- Gynecological bloods G B BRIDLAENDER J Michigan State M Soc 1927 xxvi 6 3
- A review of 600 patients recently registered in the Gynecological Clinic of the University of Michigan Hospital with special reference to abnormal bleeding J PETTERSON Boston M & S J 9 7 cxcvii 764 [200]
- The cause and treatment of metrorrhagia G A WAGNER Beitr z med klin 19 7 xxi 66
- Rapid cessation of genital hemorrhages in the female after the injection of concentrated solution of sodium citrate Med libera 92 xi 101
- The underestimated frequency and clinical importance of menstruation occurring at too long intervals and in insufficient quantity R KOEHL Zentrbl f Gynaek 1927 li 1789 [200]
- Oligomenorrhea in eunuchs cured after stimulative radiotherapy R BOUTIN Clin obstet 9 7 xix 503
- The artificial menopause G STEINHARDT Ztschr f Geburtsh u Gynaek 9 7 xci 361 [201]
- A new preparation antiovarin and possibilities for its use C A LEWISNER Ztschr f klin Med 1927 cv 773
- The office treatment of gynecological patients W T DANNREUTHER N York State J M 1927 xxvii 1185
- A consideration of certain gynecological procedures C J MILLER Am J Surg 19 7 iii 428
- Interferometry and its application in gynecology L DAVANZO Riv ital di ginec 1927 vi 433
- Iclic ancocele G DI PAOLA Semana med 1927 xxi 1066
- Lymphoedemias of genital origin I HAMANT Bull Soc d obst et de gynéc de Par 19 7 x 539
- A case of ophedema chronicum faciae and its relation to menstruation A F SLATMAN Zentrbl f Gynaek 1927 li 9
- Iclic ancocele endometriosis due to the menstrual dissemination of endometrial tissue into the peritoneal cavity J A SAMPSON Am J Obst & Gynec 19 7 xiv 4 2 [201]
- Pelvic lymphangitis or the role of the lymphatics in pelvic inflammation II H SCHLICK Med J Australia 19 7 Supp 14 418
- Combined constitutional treatment for chronic inflammatory catarrh of diseases of the female genitalia F TURIN Deutsche med Wehnschr 1927 liii 1083
- Pennae prunus L HITT Presse med Par 1927 xxx 1 80
- A case of postabortion genital peritoneal tuberculosis VITAL Med lbe a 1927 xi 338
- The localus of etheringynecology G DE TARNOWSKY Stg Gynec Obst 19 7 xlv 6 3
- The use of radium in gynecology I E KEENE Atlantic M J 1927 xxv 50
- The relationship of rape and drainage to genital cancer in the female W P GRAVES Am J Surg 1927 iii 489
- The prognosis of genital sarcoma H GOLDSCHMIDT and J KORR Arch Monatschr f Geburtsh u Gynaek 19 7 lxxi 443
- The rate of sedimentation of the red cells in primary cancer of the female genitalia and after radium therapy F PATTI Riv ital di ginec 92 vi 377
- Extended para-aortic anesthetic operations in the pelvis (gynecological operations and adominosacral resection of high rectal carcinomata) H FISTERER Wien klin Wehnschr 19 7 cl 10 7
- Indications for surgical interventions in pelvic lesions of infectious origin A H CURTIS J Am M Ass 19 7 lxxv 1191 [202]
- A study of the factors influencing the mortality and morbidity following gynecological laparotomies W R COOKE Am J Surg 1927 iii 473

OBSTETRICS

Pregnancy and Its Complications

- Petap problems P APPLETON Rhode Isl med M J 1927 6
- The environment during pregnancy J M SLEMONS C liforn & W st Med 1927 xx ii 645
- The value of the oestrogenogram in pelvimetry A J COVAT North et Med 19 7 xxi 547
- A new case of Naevus leprosy D JAFFRA and C O WIDEN Semana med 9 7 xxi 88
- The distasis of the blood serum and urine in pregnancy and the puerperium DEL PLANO Arch d obstet e gynec 19 7 xxxi 423
- Routine hemoqram studies during pregnancy and in abortion labor and the puerperium M KRUERER FRANK W HAAGEN and G OCKEL Arch f Gynaek 1927 c 534
- Does the blood amino acid picture vary during gestation and normal and pathological conditions K HELLMUTH Klin Wehnschr 9 7 i 507
- The resistance of the gravid animal against bacillus toxins J SANO Jap J Obst & Gynec 1927 17
- The influence of pregnancy on the puerperium and toxemia of pregnancy on the abortion of pigments S YUKIOKI and S UCHINO Jap J Obst & Gynec 1927 41

The etiology and pathogenesis of the leucocytic infiltration of the human placenta. K. IKEDA. Beitr z path Anat u z allg Path. 1927 lxxviii 16 [203]

Subchorionic infarcts of the placenta without maternal cardiac lesions. KREIS and HORRENBEPER. Bull Soc d obst et de gynéc de Par. 1927. vi 548

Uterine infection in man and its relation to bovine infectious abortion (Bang's abortion disease). J. F. Huddleston. J. Mich. an State M. Soc. 1927. xx. 1. 664

A series of abortions followed by septic complications. BULLAT. Bull Soc d obst et de gynéc de Par. 1927. vi 600

Complete resorption of the fetus and placenta after a criminal abortion following purulent breaking down within the uterus. G. H. SCHNEIDER. Med. Klin. 1927. xxix. 909

The diagnosis and treatment of hemorrhage from abortion. A. HELLEBRAND. Beitr z med. Klin. 1927. viii. 103

A case of death from hemorrhage following abortion. R. MANDELBAUM. Zentralbl. f. Gynaek. 1927. li. 2041

The treatment of abortion especially febrile abortion. R. BUND. Muenchen med. Wehnschr. 1927. lxxiv. 120

Abortion and sterilization in the light of the present and the proposed criminal law. W. LUSTIG. Klin. Wehnschr. 1927. vi. 1437

Therapeutic abortion with special reference to methods of induction. H. S. DAVISON. Edinburgh M. J. 1927. xxiv. Edinburgh Obst. Soc. 185 [204]

Pregnancy, labor and the puerperium in a case of hemophilia. P. A. LANDA and N. I. COSTA. Bol. Soc. de obst. y gynéc. de Buenos Aires. 1927. vi. 271

Hemorrhage in pregnancy. J. D. McQUEEN. Canadian M. Ass. J. 1927. xvii. 1. 85 [204]

The causes of dilatation of the renal pelvis and ureter during pregnancy. F. DÖRZ. Verhandl. d. deutsch. Gesellsch. f. Urol. 1927. p. 62

A foreign protein from the placenta in pregnancy nephrosis. E. SCHWARZKOPF and H. SIEVERS. Deutsche med. Wehnschr. 1927. liii. 1303

Polycystic kidney and toxemia of pregnancy. AUBREY and DAVIS. Bull. Soc. d obst. et de gynéc. de Par. 1927. xvi. 592

Toxemia of the later months of pregnancy. Its prophylaxis and treatment. R. D. MUSSEY. No. 31. The Med. 1927. x. 1. 535

Report of the Committee of the Obstetrical Section of Massachusetts Medical Society appointed for the study of recurrent toxemia of pregnancy. I. S. KELLOOG. Boston M. & S. J. 1927. cxc. ii. 771

The clinical forms of toxemia of pregnancy. E. ALFIERI. Clin. Obstet. 1927. xvi. 573

The genesis and the clinical forms of intoxication of pregnancy. E. ALFIERI. Clin. Obstet. 1927. xvi. 497

Clamptic toxemias and indications for treatment. E. M. LAZARD. Am. J. Surg. 1927. li. 433

The lactic acid content of the blood and spinal fluid in eclampsia. E. ZWEIFEL and R. SCHOLLER. Klin. Wehnschr. 1927. vi. 450

A further observation of eclampsia in mother and child. E. SCHWARZKOPF. Zentralbl. f. Gynaek. 1927. li. 1771

The kidney in eclampsia. O. H. SCHWARZ. Am. J. Surg. 1927. li. 440

Death from meningeal hemorrhage in a patient with eclampsia. A. GALI GASPAREU and I. UERO. Bull. Soc. d obst. et de gynéc. de Par. 1927. xvi. 608

The treatment of eclampsia. E. WALDSTEIN. Zentralbl. f. Gynaek. 1927. li. 1754

Vomiting of pregnancy. H. E. MARCHBANKS. J. Kansas M. Soc. 1927. xxvii. 368

Penal insufficiency and intractable vomiting. DAVIS. Bull. Soc. d obst. et de gynéc. de Par. 1927. xvi. 580

Severe vomiting and albuminuria with death of the fetus in the fourth month. The identity of the cervix and an unrecognized fibroma necessitating a vaginal puerocæsarean section. DAVIS. Bull. Soc. d obst. et de gynéc. de Par. 1927. xvi. 558

Severe vomiting of pregnancy without acceleration of the pulse abortion. J. VAN EERTS. Bull. Soc. d obst. et de gynéc. de Par. 1927. xvi. 521

The treatment of the vomiting of pregnancy and hyperemesis. L. SIRTZ. Thera. d. Gegenw. 1927. lxxviii. 19

Insulin therapy in pregnancy. A. LOESER. Zentralbl. f. Gynaek. 1927. li. 103

The insulin treatment of the vomiting of pregnancy. E. SYCUS. Med. Klin. 1927. xxix. 556

Diabetes in pregnancy. AUDEBERT and A. GAY. PARRO. Bull. Soc. d obst. et de gynéc. de Par. 1927. xvi. 574

One aspect of the problem of coma in the pregnant woman. J. OLMEY. Rev. franç. de gynéc. et d obst. 1927. vi. 44

Investigations on the influence of pregnancy and parturition upon organic cardiac disease. F. G. JENSEN. Acta obst. et gyn. Scand. 1927. i. 39

The peripheral heat in pregnancy. G. PARLI. Riv. ital. di gynec. 1927. vi. 594

Pregnancy and heart block. W. DRESSLER. Wien. Arch. f. innere Med. 1927. li. 83

Pregnancy and mitral stenosis. T. von JASCHKE. Zentralbl. f. Gynaek. 1927. li. 1354

Acute endocarditis in pregnancy and the puerperium. Notes on eleven autopsies. J. V. CRICKASHANK. Glas. M. J. 1927. cviii. 70 [205]

The treatment of cardiac complications of pregnancy and labor. F. S. NEWELL. Boston M. & S. J. 1927. cxc. ii. 757 [205]

Operations of necessity during pregnancy. P. D. MUSSEY and J. T. CRANE. Arch. Surg. 1927. x. 729

Labor and Its Complications

The history of British midwifery. H. I. SPENCER. Brit. M. J. 1927. ii. 853

Remarks upon labor in mental cases. I. ALBINA. Semana m. d. 1927. vi. 750

Spontaneous delivery following the Goebel-Stoeckel operation for urinary incontinence. A. MANDELBAUM. Zentralbl. f. Gynaek. 1927. li. 1005

A new obstetrical bag according to Aman. I. BING. Muenchen med. Wehnschr. 1927. lxxiv. 137

The use of guanine biphosphate in obstetrics. O. STEEL. Brit. M. J. 1927. ii. 87

The use of mercurochrome as a vaginal antiseptic in the induction of labor based on an analysis of 17 cases. H. W. MAYES. J. Am. M. Ass. 1927. lxxxv. 1685

Induction of premature labor and its justification. G. W. R. THOMSON. Lancet. 1927. ccxii. 1123

Further experiences with medicomechanical methods of stimulating labor pains. K. HELLMUTH. Muenchen med. Wehnschr. 1927. lxxv. 172

An experimental and clinical study of the influence of intramammary injections of physiological serum upon uterine contractility. J. LEON. Semana m. d. 1927. vi. 660

Uterine tetany early artificial rupture of the membranes normal and rapid delivery of labor in spite of the persistence of tetany. KRIS. Bull. Soc. d obst. et de gynéc. de Par. 1927. xvi. 549

An improved forceps for introducing the colpoeurter. P. BECK. Zentralbl. f. Gynaek. 1927. li. 2286

- Primary tuberculosis of the prostate A E BOTHE J Urol 19 xviii 394
- Prostatic massage F E GRIMALDI Semana med 02 xxxi 114
- Prostatic calculi B A THOMAS and J T ROBERT J Urol 19 7 xviii 40 [215]
- A review of the present position of knowledge as to prostatic enlargement Sir C WALLACE Brit M J 19 11 00 Lancet 9 ccxiii 09
- Remarks on the management of benign prostatic hypertrophy C P HOWE Virginia M Month 19 7 1r 486
- The treatment of prostatic obstruction due to benign hypertrophy R B MCKNIGHT South M & S 192 lxxxix 59
- Vital factors in the management of prostatic obstruction B A THOMAS Ann Sur 19 lxxvi 63 [215]
- Surgical treatment of a typical hypertrophied prostate with prostatic calculi J L GROVE J Kansas M Soc 9 xxvii 361
- Preparation for prostatectomy D S DAVIES and F Mc G LUGHER E Lan t 19 ccxi 04
- Suprapubic prostatectomy complete exposure method through a slit incision the operative results and technique S H HARRIS Surr C nec & Obst 9 7 xl 60
- An improved hemostatic bag for suprapubic prostatectomy G F McKIM P C SMITH and F C BEANS U I & Cutan R 9 xxxi 09
- Perineal prostatectomy the use of sacral anesthesia W S PUGH Clin Med & Surg 19 xxvi 315

Miscellaneous

- Traumatic injuries of the genito-urinary system R VINARD J Mil-surin t te M 19 xxi 07
- The urinary tract J C SEXTON Wisconsin M J 19 xxi 55
- Juvenile urology C B SMITHS South M & S 192 lxxxix 98
- Urological problems in infancy and childhood H L KRETSCHMER J Urol 19 xviii 433 [216]
- The index of a idosis in urology G ALBANO and A ACCIURELLI Pol clin Rome 19 xxxi e chir 397
- Enuresis in the male D D DAVIES Northwest Med 19 7 xxvi 349
- Enuresis nocturna successfully treated by fulguration B A THOMAS J Urol 19 xvii 57
- Enuresis in female child N A MATTHEWS New Orleans M & S J 9 lxxx 30
- The association of urological lesions with hypothyroidism H G BECK Endocrinology 1927 xi 438
- Phosphatuna from the chemical point of view H LEFFMAN J Urol 1927 xviii 524
- Hemoglobinuria paroxysmalis E B SALEN Acta med Scand 19 lxxv 366
- Ichthosis and hematuria G OLIVIERI J diurol m d et chir 19 xxi 10
- The diagnostic significance of hematuria C E JELM Ohio State M J 19 xviii 911
- So-called essential hematuria H KROHN Ztschr f urol Chir 19 xxii 467
- Pvuria S J PEARLMAN Med J & Rec 192 cxxvi 3
- Röntgenray examination of the urinary tract F C WILSON J Oklahoma State M A s 19 cx 302
- Pathological-anatomical studies of syphilis of the urogenital system F WOHLWILL Ztschr f urol Chir 19 xvii 1
- A note on the advancement in the treatment of venereal diseases during the present decade H W BAYLA Internat J Med & Surr 1927 vi 437
- The diagnosis and treatment of chronic gonorrhea and some complications in the male E MOORE J Oklahoma State M A 9 xx 298
- An unusual complication of gonorrhoea G A BRANDIN C robia med 19 193
- The management of acute gonorrhoea occurring in the male H S BROWN J Oklahoma State M A s 192 cx 9
- The treatment of gonococcus disease with acid e P N SALA Med ther 19 7 xi 30
- The determination of the cure of gonorrhea and early tertiary syphilis M CASTRO Arch brasil de med 19 xvii 84
- Urotropine in the treatment of infectious diseases of the urinary passages J SCHULTZEN Re de medicina 19 11 39
- Urinary fistulas clinical and therapeutic problems of the disease and of calculus anuria A OTERO Ars med 19 7 iii 289
- Sarcoma of the genito-urinary tract GOTTSTEIN Zentralbl f Chir 19 li 09
- New remedies in urinary surgery J T TAIT Med J Australia 19 11 638
- Diatery in urology T O RITCH Ill no M J 192 li 409
- Contribution to the defence of cocaine MORAN J diurol m d et chir 19 xxv 14
- A review of urological surgery A J SCHOLL E S JUDD L D KEYSER G S FOULD and others Arch Surr 19 7 xi 99

SURGERY OF THE BONES JOINTS MUSCLES TENDONS

Conditions of the Bones Joints Muscles
Tendons Etc

- The physiology of growth cartilage H MAASS Arch f Klin Chir 9 cxl 8
- An experimental study of certain factors influencing osteogenesis J J MORTON and S J STABINS N York tate J M 19 xxvii 9
- Radiological interpretation of bone tumors L D PARRY J Med A Georgia 10 x 36
- Röntgen irradiation of chronic bone fistulae G H SCHNEIDER Strahlentherapie 19 xxi 503
- Osteodystrophia fibrosa circumscripta A GOTTESLEBEN Deutsche Ztschr f Chir 19 7 ccxii cxi 36

The possible influence of malaria in the etiology and pathogenesis of neket G MACCIOTTI Pol clin Rome 19 xxxiv cz med 460

Chronic epiphysitis and metaphysitis A OVEN JOHNSON Med J Australia 19 7 Supp 10 298

The epiphyseal changes in the diagnosis of scurvy A B SCHWARTZ Am J Dis Child 19 xxvi 6

Four cases of epiphyseal lesion of cartilage resulting in disturbance of the growth of bone G HENRY Arch Franco-bel de chir 19 7 xxx 3

Epiphyseolysis M A BERNSTEIN and R A ARE S Radiology 192 ix 497 [217]

The formation of rice bodies in tuberculosis M H ROGERS J Bone & Joint Surr 92 ix 636 [217]

Pes planus J H ROBINSON J Roy Army Med Corps Lond 1927 lx 371

The treatment of flat foot description of a new typ of inset E SCHNITZER Arch f Klin Ch 19 7 cl 1 64

The etiology of Koehler's disease of the tarsal scaphoid H NIDEN Deutsche Ztschr f Chir 19 7 cc 11 cc 488

Ictostosis of the bones of the foot A I HINCHICK Illinois M J 1927 lx 388

Surgery of the Bones Joints Muscles Tendons Etc

The modeling osteotomy of Ierthes W BALTSCHOFFER and J PORR Zentralbl f Chir 1927 lx 938

Surgical treatment of tuberculosis of bones and joints E J CURRANGS Texas State M J 19 7 u 469

Conservative surgery of benign bone tumor C W PRADON J Michigan State M Soc 19 7 x 1 660

The operative treatment of chronic non specific diseases of the joints W JAROSCH Med Klin 1927 x u 1 4

Experiences with Robertson's allie operation A R LGANA Semana m d 19 xx 11 59

Late results of an operation for spastic paralysis of the upper limb FRYGAT J de chir et Ann Soc belge de chir 19 7 f 13

Comparative results of operative and non operative methods of treatment of tuberculosis of the p in children J C KIDLER and T MURO J Bone & Joint Surg 19 7 l 649

The treatment of pyarthrosis of the knee by frontal resection of the posterior portion of the femoral condyles by the method of LAEVEN BUDD Zentralbl f Chir 19 7 lv 214

Subtotal excision of tibia replaced by fibula J R HARGER Illinois M J 1927 lx 38

Fusion operation on the foot A B GILL J Am M Ass 19 7 l xiv 829

A very simple operation for hallux valgus HANS Zentralbl f Chir 1927 lv 2140

Fractures and Dislocations

Repa and de traction at the site of fracture healing as an index to the type of treatment GOETZL Zent albl f Chir 19 7 lv 2077

The mode n treatment of fractures M J WILL J Am Inst Homeop 19 7 xx 081

Pseudarthroses B PRATER Deutsche Ztschr f Chir 1927 cc 1 71

Monteggia's fracture G ALLENDE C Roda m d 1927 l 97

Habitual dislocation of the humerus BEER Zentralbl f Chir 1927 lv 2304

The treatment of recent luxation of the shoulder by continuous extension J M JAZIO Semana m d 19 7 xxx 1060

Back and and dislocation of the sternal end of the clavicle open reduction R BROWN Sur Clin N Am 19 7 li 1263

Fractures about the elbow N ALLISON J Am M Ass 19 7 l xiv 1568

Open fracture of both bones of the forearm TRICOR and TRILVES Bull et m m Soc d chir de I 19 7 x 50

A case of fracture of the neck of the radius G IOTTI Polid n Rome 192 xx 11 s 2 prat 1316

Fractures of the lower extremity of the radius diagnosis and treatment W DURRACH J Am M Ass 19 7 lxxix 1683

Fracture of the lower end of the radius (colles fracture) and its treatment V FISKELUND Acta chir Scand 1927 li 41

Complete luxation of the carpal semilunar bone without fracture of any of the bones of the wrist J P CORSEY Radiol Rev & Chicago Med Rec 19 7 lx 416

Bennett's fracture L BRESSOR Bull et m m Soc d ch de Par 1927 ix 483

A case of Bennett's fracture CAMBRISTE J de chir et An Soc bel ede chir 19 7 p 1 5

Simple uncomplicated rotary dislocation of the atlas R H JACKSON Surg Gynec & Obst 19 7 lv 156

On fractures of the first cervical vertebra G JEFFERSON Brit M J 19 7 u 153

The treatment of fractures of the thoracic and lumbar vertebrae M GRASHINSKY Zentralbl f Chir 1927 lv 1514

Sacro iliac subluxation as a cause of backache H H COX Surg Gynec & Obst 19 7 xiv 637

Fracture of the anterior inferior spine of the ilium C F CORLIETTE Med J Austalia 19 7 u 682

Griphysal separation at the edge of the symphysis pubis and fracture of the ischiopubic ramus G ALLFENDE Semana med 1927 xxx 778

Spontaneous dislocation of the hip Seife Zentralbl f Chir 1927 lv 2470

Bilateral luxation of the hip G ROTTENSTEIN Arch fran o bel ede chir 19 7 x 111

Roentgenograms of fractures of the femur R FALTIN Acta chir Scand 1927 lvi 10

On cases of partial fracture of the middle epicondyle of the femur Stieda's fracture L RINGGOLD Polid Pome 1927 xxx 522

A type of plaster spica useful in the conservative treatment of fractures of the femur A THORNDYKE JR Boston M & S J 1927 cxc 1 978

The use of the olecranon head supports in treatment of fracture of femur in infants H D SONNENSCHEIN Surg Gynec & Obst 19 7 l 70

A treatment for fractures of femoral neck report of five cases G A HERMON Ke lucky M J 1927 xxx 642

Epiphyseal necrosis in healed fractures of the neck of the femur S JOHANSSON Zent albl f Chir 1927 lv 2214

Delayed healing of fractures of the leg H BLECKER Arch f Othop u Unfall Chir 19 7 xx 3 4

Fractures of the tarsal bones W MUELLER Arch f Othop u Unfall Chir 1927 xv 26

Subcutaneous luxation of the talus and its reduction F PAKAREK Muenchen med Wchnschr 19 7 lxiv 1095

A new device for the reduction of fractures uses advantages and results L G McCLECHEN Radiology 19 7 xv 308

The strength of certain materials used for extension K I LINSBERG Acta chir Scand 1927 lvi 1

The technique of the extension H SCHMIDT Muenchen med Wchnschr 1927 lxvii 1099

Orthopedics in General

Orthopedic clinic R B DILLMANT Surg Clin N Am 19 7 lv 1307

The cripple in war and in civil life J B WADE Med J Australa 1927 Supp 12 377

The treatment of the crippled soldier in war and peace H S NEWLAND Med J Australa 19 7 S pp 1 375

The necessity of adequate record as a means of securing the best results to the injured J B WALKER Internat J Med & Surg 19 7 xl 440

SURGICAL TECHNIQUE

Operative Surgery and Technique
Postoperative Treatment

- The preparation of patients for operation F K BURNETT J Iowa State M Soc 1927 xii 434
- Operative surgery A textbook for students and physicians O KLEINSCHMIDT 1927 Berlin Springer
- Resuscitation by artificial respiration O BRUNS Klin Wchnschr 1927 vi 1548
- Resuscitation after electrical shock W MACLACHLAN Canadian M Ass J 1927 xvii 1346
- Reanimation of the heart by intracardiac injections of adrenalin G SICILIANI Rasse na internaz di clin e terap 1927 viii 539
- Intracardiac injections F GORWANDT Deutsche Ztschr f Chir 1927 ccv 28
- Intra-venous constant drop infusion of kalone solution W SCHIEY Wien Klin Wchnschr 1927 vi 561
- Electrical burns and electrical shock R E GABY Canad M Ass J 1927 xvii 1343
- A severe and extensive burn treated with solution of tannic acid J HUNTER Canad M Ass J 1927 ii 1357
- The treatment of burns according to the method of Tschamke K RESCHKE Arch f klin Chir 1927 cvl 763
- Skin grafts DUFOURMENTEL Bull et mem Soc d chirurgiens de Pa 1927 i 672
- Some problems to be solved in reconstructive surgery BASTOS ANSART Arch de med chir g especal 1927 viii 365
- A new method of obtaining autogenous fascial grafts without an extensive incision J S ROWLANDS Practitioner 1927 cxix 32
- Dead (preserved) fascia grafts A R KOONTZ J Am M Ass 1927 lxxvii 123 [228]
- Some late results in breast and joint plastic surgery with free transplant of fat L WREDE Deutsche Ztschr f Chir 1927 ccvii 672
- The use of salt pork to control hemorrhage L M HURD Arch Otolaryngol 1927 vi 447
- A new suturing hemostat J DALLY Med J & I c 1927 c vii 68
- An interrupted continuous suture E P IERMAN J Missouri State M Ass 1927 xiv 53
- The postoperative care of Ollier-Thiersch skin grafts advisability of daily surgical dressings E I ILLIUSON Surg Gynec & Obst 1927 xlv 708
- Postoperative complications A H MILLER I hod Island M J 1927 x 181
- Consequences of operative trauma upon the kidney, liver, and circulatory and nervous systems E FERRARI Policl n Rome 1927 xx i cz prat 135 1390
- Operative pneumonia J OUFNU and S OMERLIN Arch m d chir d lappat respir 1927 ii 40
- Postoperative acetonuria BATZDORFF Zentralbl f Chir 1927 liv 2097
- Postoperative latent tetany (studies of the blood calcium) K LOEWENSTEIN Zentralbl f Chir 1927 l 1935

Antiseptic Surgery Treatment of Wounds
and Infections

- A new concept in the treatment of traumatic injuries T ZWANEK Semana med 1927 xxii 85

- The indication for the removal of lead bullets VOGELER Zentralbl f Chir 1927 lv 1762
- The graphic method in the study of wound cicatrization A CHIASSERINI and L FERPETTI Policl n Pome 1927 xx iv sez chir 445
- The treatment of wound MAGNUS Zentralbl f Chir 1927 liv 132 2137
- Wound infection by anaerobic organisms in peace time injuries K BERNHARD Schweiz med Wchnsch 1927 lvi 681
- The local changes in wound infection ROMER Zentralbl f Chir 1927 liv 2133
- Local infections a plea for et dressings W D WISE South M J 1927 xx 857
- The treatment of general septic infection W DENA Wien klin Wchnschr 1927 xl Supp 0 r
- Autogenous blood treatment in septic processes W IHNHART Wien klin Wchnschr 1927 vi 657
- Autovaccine therapy G IETRAGNANI Policl n Rome 1927 xx iv sez prat 1279
- Chemotherapy of streptotribrosis G DESSY Spennentele 1927 lxxvi 449
- Considerations on a case of staphylococcal septicopyemia treated by intravenous iodine solution R CASTEN MURANO S BALESTRA and R L IEPETRO Re Soc de med int na y Soc de tiol 1927 i 151
- Hexylresorcinol as a general antiseptic A LEONARD and W A FEIER Surg Gynec & Obst 1927 xlv 603 [228]
- The treatment of acute purulent inflammations, the roentgen rays A KOHLER Deutsche Ztschr f Chir 1927 ccvii 539
- The treatment of infection general principles underlying treatment from the surgical standpoint and therapeutic indications to be drawn therefrom A O WILENSKY Arch Surg 1927 v 737
- The pathogenesis and treatment of carbuncles MATILLA Goitez Arch de med chir y csp cal 1927 ii 298
- The treatment of carbuncles L CAMP Ann Surg 1927 lxxvii 70

Anesthesia

- Some important factors in modern anesthetic practice I A TILLY and H S IUTTI Hahneman Month 1927 l ii 844
- An address on the effect of anesthetics on the body as a whole W WEBSTER Canad M Ass J 1927 xvii 190
- The application of gaseous anesthetics in some unusual types of operations and in patients with unusual complications E I McKESSON Canad M Ass J 1927 xvii 1314
- Oxygen administration H W DAVIS Brit M J 1927 ii 91
- Indications for oxygen therapy W T RITCHIE Brit M J 1927 ii 915
- Studies in the improvement of ether anesthesia III F STIRLINGER Ztschr f d b s e per Med 1927 l i 535
- An attempt at segmental epidural anesthesia J A ALEXANDER J de chir et Ann Soc b lge de chir 1927 p i i
- In defense of spinal anesthesia G IHNHART Policl n Rom 1927 xii sez prat 1500
- Spinal anesthesia a report of 392 cases J J A McMULLIN Surg Gynec & Obst 1927 xl 649

MISCELLANEOUS

Clinical Entities—General Physiological Conditions

Health findings in children of school age—989 examinations D S BRACHMAN and E J HALL J Michn State M Soc 197 1 649

The mechanism and treatment of experimental shock I Shock following hemorrhage A BLOOCK Arch Surg 1927 xv 762

Cerebralized pemphigus of syphilitic origin in unsuccessful sea ch for treponema at the border of the lesions LAURITTE Bull Soc d'ob et de gynec de lar 197 1 569

Raynaud's disease and scleroderma PARDO URDA ILLETA Arch de med e chir y espec 192 vii 36

The treatment of diabetic gangrene Prophylaxis When to amputate When to practice conservatism I ILMANN Med Clin N Am 1927 vi 64

The onset and treatment of pyrene complication diabetes J L HARRISON Ann Int Med 97

Ambulatory treatment of varicose ulcers J DIVANI Lancet 1927 c viii 864

Neuromatosis of the internal sphenous associated with a total sympathectomy in the treatment of complex ulcers L DURANTZ Polclin Rome 97 vii 47

The action of tetracycline on chronic ulcer of the leg C MARANO and J LERRO Re md de Barcel 1927 95

Foot ulcer A H LIRN Canadian M As J 197 ii 1320

The etiology of lymphoma in children with report of eleven cases M CATHILL Am J Sc 97 clxiv 670

Granuloma inguinale the lymphoma in children acted in the United States T W ROSS and I L KAPLAN North Ct M J 1927 543

Tuberculosis C L ENEN 97 Berlin Uba a I bel n lerg

The influence of the clitoral blood content on the growth of tumors in the mouse A M RAVIA Arch Clin Cancer Res 92 99

Hematomata and their treatment by injections of bolus, ateloidin South M J 1927 844

Cancer K W D ELL Winstanley M J 97 1 547

Some notes on cancer M W LAR M J d J & Re 1927 clxv 590

The problem of malignancy I S ALLAN M J 1927 65

Cancer presentation position P MACCORMACK M J J Attalia 97 Supp 14 435

The present status of the cancer problem W S BANBRIDGE Arch med belge 1927 449

Apparent infatuation of cancer J BLER n Bnt M J 97 ii 986

An in situ attempt to cultivate the chloroma in melanoma J A KOLM R M J J RAIN and L SALLERBY J Am M As 1927 lxxv 868

Hypochlorite in the treatment of cancerous disease A II IORIO Le de medicina 927 ii 4

Cancer of the nose and paranasal sinuses I LEVIN Arch Clin Cancer R search 927 iii 8

Wegscheider's reaction in cancer I II ILLIEN Am J M Sc 1927 clxiv 680

Skin cancer—diagnosis and treatment W H HAILEY J Med As Georgia 1927 xvi 376

Melanotic carcinoma with the report of a case S S MARCHBANKS South M J 1927 xv 89

How shall we deal with the cancer menace? G FITZ PATRICK Am J Obst & Gynec 1927 xiv 616

Vaccine treatment of inoperable cases of malignancy F NICHOLSON Deutsche Ztschr f Chir 1927 cxiiv 64

The treatment of cancer as a physicochemical problem with particular reference to a possible gas treatment F B ANDERSEN and A FISCHER Ztschr f Krebsforsch 1927 xvi 63

The treatment of malignant neoplasms by means of antineoplastic isopropylated on ten years experimental study N M R KILORMA med 1927 xli 1012

The effect of lead upon normal and malignant tissues F I NIZURU P D EYAN and II J ULLMANN California & W st Med 1927 vii 629

Local anastomosis in cancer mortality L EYLES Boston M & S J 1927 c xvi 964

The development of sarcoma following a brain injury F MILLNER Arch f klin Ch 1927 clvii 153

Multiprimary manifestation of Kaposi's sarcoma with special reference to specific localization R LAOLINI F sagna internaz di clin e te ap 97 vii 514

Unusual metastasis of a sarcoma in case with osteosarcoma L H WANN Frankfurt Ztschr f l th 1927 xvi 56

The prognosis and treatment of giant cell sarcoma W B COLLY A n Su 97 lxxv 641

[231]

General Bacterial Protozoan and Parasitic Infections

The etiology of focal infection medical aspects I I HAYLEY Ann Otol Rhinol & Laryng 1927 xvi 896

Variations in the protein content of the serum their significance and influence in the treatment of tuberculosis th light SCHNIDDER Zentbl f Chir 1927 li 145

Two cases of atypical tetanus S T IRWIN Lancet 1927 cc liii 1127

Atypical tetanus with the report of a case A I CHESLEN V J 1927 M Month 97 li 49

A case of postoperative tetanus B ELKIN and A ARNOLD Br So ob et y g c de B nos vi 1927 i 65

Infantile tetanus in a child in a contusion to the body and treatment I JOSTLE and F ARANCHIA Sena a m l 1927 c 350

Tularemia report of a case C I HENRY J Lancet 1927 i 50

Mitral fever in Iowa A V HARRIS J Io a State M S 1927 x 414

Mitral fever with epidemic fever in the Ithaca An epidemic of 19 W W WATKINS and G C LUKS J Am M As 1927 lxv 1581

Staphylococcus epidermidis J Arch Iev m d d Bar I 97 39

Forula infectio in n n n O BERGHAUSEN Ann I t Med 97 35

Rapid demonstration of the vibrio of cholera with an apparatus for summation of the vibrios A MASTROIANI Riforma med 97 xlii 647

[232]

APRIL, 1928

International Abstract of Surgery

Supplementary to

Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H. MARTIN Chicago

SIR BERKELEY MOYNIHAN K.C.M.G. C.B. Leeds

PAUL LECENE Paris

SUMNER L. KOCH Abstract Editor

DEPARTMENT EDITORS

EUGENE H. POOL General Surgery

FRANK W. LYNCH Gynecology

JOHN O. POLAK Obstetrics

CHARLES H. FRAZIER Neurological Surgery

F. N. G. STARR Abdominal Surgery

CARL A. HEDBLOM Chest Surgery

LOUIS E. SCHMIDT Genito Urinary Surgery

PHILIP LEWIN Orthopedic Surgery

ADOLPH HARTUNG Roentgenology

HAROLD I. LILLIE, Surgery of the Ear

L. W. DEAN Surgery of the Nose and Throat

ROBERT H. IVY Plastic and Oral Surgery

CONTENTS

| | | |
|-----|--|---------|
| I | Index of Abstracts of Current Literature | iii |
| II | Authors | ix |
| III | Editor's Comment | x |
| IV | Abstracts of Current Literature | 259-317 |
| V | Bibliography of Current Literature | 318-344 |

Editorial communications should be sent to Franklin H. Martin, Editor, 54 East Erie St., Chicago

Editorial and Business Offices, 54 East Erie St., Chicago 10, Illinois, U.S.A.

Publishers for Great Britain: Baillière Tindall & Cox, 8 Henrietta St., Covent Garden, London, W.C.

CONTENTS—APRIL, 1928

ABSTRACTS OF CURRENT LITERATURE

SURGERY OF THE HEAD AND NECK

Eye

FENTON P. A. The Differentiation Between Ophthalmic and Sinus Headaches 259

GOVE E. L. Glaucoma Following Obstruction of the Central Vein of the Retina 259

LEWIS F. P. A Non Operative Treatment of Inflammatory Glaucoma 59

GRADLE H. S. A Conjunctival Drain of the Anterior Chamber An Operative Technique Used in Absolute Glaucoma 259

FOX L. W. Congenital Cataract A Plea for Variety in Its Surgical Treatment 60

IARBER W. R. Cataract Extraction The Comparative Results Obtained by the Combined Simple and Knapp Torok Methods of Procedure 260

DUNPHY F. B. Loss of Vitreous in Cataract Extraction 60

ROPER H. The Different Types of Defects of the Field of Vision 60

LJUB PAVLA J. Photography of the Eyeground 260

BEDELL A. J. A Photographic Study of Holes Occurring in the Macular Region and Associated Changes 61

LISTER SIR W. T. Some Points in Connection with Detachment of the Retina 261

LAWSON SIR A. The Value of Antiseptics in Modern Ophthalmic Surgery 61

VAN HEUVEN J. A. Some Remarks on Lagrange's Surgical Treatment of Detachment of the Retina 261

OLIVER K. S. and CROWE S. J. Retrobulbar Neuritis and Infection of the Accessory Nasal Sinuses 261

SWIFT G. W. Choked Disk in Intracranial Lesions the Mechanical Factor in Its Causation 267

Ear

LYMAN H. W. The Otolaryngological Phase of Focal Infection 262

MACKENZIE C. W. Suppurative Otitis Media with a Report of Cases 25

LYMAN H. W. Infantile Mastoiditis with Gastrointestinal Symptoms 26

SHUSTER B. H. Intracranial Complications of Otitic Origin with Reference to Diagnosis and Management 67

Nose and Sinuses

FENTON R. A. The Differentiation Between Ophthalmic and Sinus Headaches 259

SCHMIEGELOW F. Clinical Remarks on the Use of Surgical Diathermy for Malignant Tumors in the Anterior Air Passages 63

DEAN L. W. The Influence of Paranasal Sinus Infections in Infants and Young Children upon Certain Systemic Conditions and the Influence of Certain Systemic Conditions in Infants and Young Children upon the Method of Treating Co-existent Sinusitis 263

EMERSON F. P. The Varying Symptomatology of Chronic Maxillary Sinusitis Depending on the Pathology Present 63

Neck

RIENHOFF W. F. JR. Hyperthyroidism and Its Relation to Benign Tumors of the Thyroid Gland 64

ELSG J. E. Regeneration of the Thyroid Gland and the Prevention of Recurrent Goiters 264

SIMON F. Heart Block After Goiter Operations 65

THOMSON SIR St. C. Laryngeal Carcinoma of the Larynx Four Cases in Medical Men Who Are Now in Active Practice Two and a Quarter Three Four and a Half and One and a Half Years After Operation 265

COLLENDER L. Laryngectomy in Cancer of the Larynx 66

SURGERY OF THE NERVOUS SYSTEM

Brain and Its Coverings Cranial Nerves

CREVELL and LOUNAT. Indirect Injury of the Brain Treated by Trephination One and One Half Years Ago Retrospective Diagnostic Considerations 267

SWIFT G. W. Choked Disk in Intracranial Lesions the Mechanical Factor in Its Causation 67

SHUSTER B. H. Intracranial Complication of Otitic Origin with Reference to Diagnosis and Management 267

GRANT F. C. The Indications for and the Technique of Ventriculography 68

SOSHAN M. C. Radiology as an Aid in the Diagnosis of Skull and Intracranial Lesions 68

PEFT M. V. Pituitary Adamantinomata A Report of Three Cases 269

PENFIELD W. Chronic Meningeal (Post Traumatic) Headache and Its Specific Treatment by Lumbar Air Insufflation Encephalography 270

Spinal Cord and Its Coverings

HERRMANN L. G. A Bullet Free in the Spinal Canal 270

GYNECOLOGY

- Uterus**
- ODENTAL W Dangers of Uterosalingography 290
FRONTICELLI E Tertiary Syphilis of the Uterus and Adnexa 290
CULZEA T Tests of the Virulence of Streptococci in the Treatment of Cancer of the Uterus 290
POMEROY L A Five Year End Results of Radium Treatment in Carcinoma of the Cervix Uteri 291

Adnexal and Peritoneal Conditions

- RUBIN I C Rhythmic Contractions and Peristaltic Movement in the Intact Human Fallopian Tube as Determined by Peritoneal Gas Insufflation and the Kymograph 291
FRASER J R The Ovary in Osteomalacia 92
DALLERA N A Cyst of the Ovary Diagnosed as a Fibromyoma of the Uterus 92

External Genitalia

- PUCIONI L Histological Changes in the Vagina in the Different Phases of the Functional Cycle of the Ovary 292
TURNI S H D Ureterovaginal and Vesicovaginal Fistula Combined 293

Miscellaneous

- BOVNEY V Gynecological Considerations in Chronic Appendicitis 283

OBSTETRICS

Pregnancy and Its Complications

- NORDIO A Some Cases of Perforation of the Uterus 294
HOROWITZ E A and KUTTNER T T The Blood Bilirubin in Ectopic Pregnancy 94
BIERENDSCHEFF ELICK F Repeated Extra Uterine Pregnancy on the Left Side 294
HASSFELDT R Repeated Pregnancy in the Same Tube Two New Cases 294
KUNZ H On the Pathology of the Umbilical Cord 295
CORWIN J and HERRICK W W The Toxemias of Pregnancy in Relation to Chronic Cardiovascular and Renal Disease 295
BENDA R The Present Status of Our Knowledge Regarding the Toxemias of Pregnancy 295
RUCKER M I The Treatment of Eclampsia with Magnesium Sulphate 296
BROTHA The Indications for the Interruption of Pregnancy 296
SPRECHER The Induction of Abortion in Syphilis 297

Labor and Its Complications

- DAVIS C H The Evaluation of Methods in Obstetrical Analgesia and Anesthesia with Special Reference to Gas Oxygen 297
ZARATY H Partial Symphysiotomy as Compared with Cesarean Section in Contracted Pelvis Twenty Cases of Partial Symphysiotomy 297

Puerperium and Its Complications

- FRUHNHOLZ A Early Retroversion of the Uterus After Delivery 298
BRUEGELMANN C Observations on Puerperal Sepsis Particularly the Localization and Frequency of Metastases 298
WEINZIERL C Total Cancer of the Uterus During the Puerperium 299

Miscellaneous

- KOSMAK G W The Results of Supervised Midwife Practice in Certain European Countries Can We Draw a Lesson from This for the United States? 99

GENITO URINARY SURGERY

Adrenal Kidney and Ureter

- CORWIN J and HERRICK W W The Toxemias of Pregnancy in Relation to Chronic Cardiovascular and Renal Disease 295
LEE BROWN R K and LAIDLEY J W S Pyelovenous Backflow 300
BELCHER G W Renal Distortion Its Relation to Nephrosis 300
GOTTLEB J G Crossed Renal Dystopia 300
ANTONUCCI C and CASSUTO A Cases of Pseudo-Ureteral Anomalies 300
CORNUSS B C Pyelonephritis and Its Relation to Non Gonorrheal Urethritis 301
EISENDRATH D N The Indwelling Ureteral Catheter in the Treatment of Pyelonephritis and Other Renal Conditions 301
HUNLEUR M The Indocarmine Test as a Method of Diagnosing Renal Tuberculosis 301
SERRÉS E IBARRA A Review of Eighty Five Nephrectomies for Renal Tuberculosis 94
GOTTLEB J The Early Diagnosis of Renal Tumors 302
DÖRZ F Further Observations on Vascular Tumors of the Renal Pelvis and the Ureter 302

Bladder Urethra and Penis

- MARION and CHEVASSU Another Case of Congenital Hypertrophy of the Urethra and Urethral Derivatives 295
CRAIG G and BROWN R K L The Pathology of Epithelial Bladder Tumor 303

SURGERY OF THE BONES JOINTS MUSCLES TENDONS ETC

- Conditions of the Bones Joints Muscles Tendons Etc 96
BLUMHARDT W C and KERN P Experimental Obstructive Jaundice I General Factors in Defective Calcification 2
FRASER J R The Ovary in Osteomalacia 92
ALBEE F H Myofascitis A Pathological Fixation of Many Apparently Different Conditions 297
KANAVEL A B The Dynamics of Fractures of the Hand with Considerations of the Methods of Obtaining the Position of Fracture by Spontaneous 301

BIBLIOGRAPHY

Surgery of the Head and Neck

| | |
|------------------|-----|
| Head | 318 |
| Eye | 318 |
| Ear | 319 |
| Nose and Sinuses | 320 |
| Mouth | 320 |
| Pharynx | 320 |
| Neck | 321 |

| | |
|---------------|-----|
| Newborn | 333 |
| Miscellaneous | 334 |

Genito Urinary Surgery

| | |
|---------------------------|-----|
| Adrenal Kidney and Ureter | 334 |
| Bladder Urethra and Penis | 335 |
| Genital Organs | 335 |
| Miscellaneous | 335 |

Surgery of the Nervous System

| | |
|--|-----|
| Brain and Its Coverings Cranial Nerves | 321 |
| Spinal Cord and Its Coverings | 322 |
| Peripheral Nerves | 322 |
| Sympathetic Nerves | 322 |
| Miscellaneous | 322 |

Surgery of the Bones Joints Muscles Tendons

| | |
|---|-----|
| Conditions of the Bones Joints Muscles Tendons | |
| Ftc | 336 |
| Surgery of the Bones Joints Muscles Tendons Etc | 337 |
| Fractures and Dislocations | 338 |
| Orthopedics in General | 339 |

Surgery of the Chest

| | |
|---------------------------|-----|
| Chest Wall and Breast | 323 |
| Trachea Lungs and Pleura | 323 |
| Heart and Pericardium | 323 |
| Esophagus and Mediastinum | 324 |
| Miscellaneous | 324 |

Surgery of the Blood and Lymph Systems

| | |
|-------------------------|-----|
| Blood Vessels | 339 |
| Blood Transfusion | 340 |
| Lymph Vessels and Gland | 341 |

Surgery of the Abdomen

| | |
|--|-----|
| Abdominal Wall and Peritoneum | 324 |
| Gastrointestinal Tract | 325 |
| Liver Gall Bladder Pancreas and Spleen | 327 |
| Miscellaneous | 328 |

Surgical Technique

| | |
|---|-----|
| Operative Surgery and Technique Postoperative Treatment | 341 |
| Antiseptic Surgery Treatment of Wounds and Infections | 341 |
| Anæsthesia | 342 |
| Surgical Instruments and Apparatus | 342 |

Gynecology

| | |
|-----------------------------------|-----|
| Uterus | 329 |
| Adnexal and Peruterine Conditions | 329 |
| External Genitalia | 330 |
| Miscellaneous | 330 |

Physicochemical Methods in Surgery

| | |
|---------------|-----|
| Roentgenology | 342 |
| Radium | 343 |
| Miscellaneous | 343 |

Miscellaneous

| | |
|----------------------------------|-----|
| Obstetrics | |
| Pregnancy and Its Complications | 331 |
| Labor and Its Complications | 33 |
| Puerperium and Its Complications | 333 |

| | |
|--|-----|
| Clinical Entities—General Physiological Conditions | 343 |
| General Bacterial Protozoan and Parasitic Infections | 344 |
| Surgical Pathology and Diagnosis | 344 |
| Experimental Surgery | 344 |
| Hospitals Medical Education and History | 344 |

AUTHORS

OF THE ARTICLES ABSTRACTED IN THIS NUMBER

- Albee F H 304
 Andrei O 308
 Antonucci C 300
 Bedell A J 261
 Belcher G W 300
 Beller A J 279
 Bender R 293
 Bierendempfel Pleck F 94
 Bonney V 283
 Boothby W M 273
 Bristow W R 305
 Brouha 96
 Brown G E 311
 Brown R K L 303
 Bruegelmann C 298
 Buchbinde J R 275
 Buchbinder W C 287
 Burden V G 288
 Caorsi L J 83
 Capps J V 274
 Calett J B 284
 Carp L 313
 Cassuto A 300
 Charbonnel 282
 Chevassu 302
 Clark S L 7
 Coffey R C 86
 Colledge I 266
 Collins L 317
 Corbus B C 3
 Corwin J 95
 Craig C 303
 Creyck 267
 Crowe S J 261
 Cryderman W J 280
 Cuizza T 220
 Cutler C W Jr 85
 Dallera N 92
 Davis C H 97
 Dean L W 263
 Delrez L 279
 Dowden J W 283
 Dosa F 302
 Dunphy F B 260
 Lisendrath D N 301
 Else J F 264
 Fly L W 309
 Emerson F P 263
 Farmer H L 31
 Fenton R A 259
 Fox L W 60
 Fraser J R 292
 Fonticelli L 90
 Fruhinsholz A 298
 Fulde E 288
 Furniss H D 293
 Ghedini A 86
 Cinsburg I 79
 Goar E I 259
 Gordon Watson Sir C 286
 Gottlieb J 302
 Gottlieb J G 300
 Goyena J R 283
 Gradle H S 259
 Granger F B 315
 Grant F C 268
 Grassmann M 310
 Gegera H 311
 Handley W S 272
 Hasselblatt R 294
 Hatcher R A 313
 Henderson M S 311
 Herrick W W 95
 Herrmann L G 270
 Hertzer A E 316
 Hirsch I S 273
 Horowitz E A 294
 Hubler M 301
 Humphreys F B 311
 Ingebrigtsen R 306
 Jaffe H L 305
 Johnson H L 76
 Kanavel A B 304
 Kern R 87
 Key Aberg A 279
 Koch J 281
 Kosmak G W 99
 Kunze H 29
 Kuttner T T 94
 Laeven A 306
 La dley J W S 300
 Lawson Sir A 261
 Lee B own R K 300
 Leone P 87
 Lewis F I 259
 Ily Pav a J 260
 Lion G 316
 Lister Sir W T 26
 London Medical Society 272
 Fouhat 267
 Lusskin H 30
 Lyman H W 262
 Mackenzie G W 62
 Marion 30
 McFarland J 7
 McQueen J M 287
 Meloney I L 313
 Moersch H J 273
 Morris n f I 73
 Moutier F 76
 Nordio A 94
 Nordmann O 277
 Odenthal W 290
 O'Donovan W J 35
 Ollecona H 310
 Ol er k S 61
 O'good P B 309
 Parker W R 260
 Paterson D 73
 Peet M M 69
 Penfield W 70
 Pfab B 308
 Pieri C 289
 Platou I S 317
 Lomeroy I V 9
 Porcel I 26
 Pouet I 307
 Puccinelli V 79
 Puccioni I 292
 Pihloff W I J 4
 Ronne H 200
 Rubin L C 29
 Rucker M I 96
 Schaefer W 35
 Schlutz F W 3
 Schmiede V 81 28
 Schmiegelow I 63
 Sequeira J H 35
 Ser selbar 301
 Short A R 278
 Shuster B H 67
 Simon I 265
 Sonnenschein H 303
 Sosman M C 68
 Sprecher 97
 Sprengel H 89
 Stiff C W 267
 Thomson Sir St C 66
 Totter W 83
 Ullmann H J 316
 Van Heuven J V 26
 Verbruyck J F Jr 88
 Walton A J 83
 Weinle I F 299
 Wsthus H 81
 Wilke D P D 8
 Zadek I 305
 Zarate H 29

EDITOR'S COMMENT

OF the unexpected catastrophes that occur from time to time in the practice of surgery none is more tragic than the development of a fatal wound infection after a simple operation in a clean case. Two years ago Melencz called attention to the relation between postoperative hæmolytic streptococcus and infections and hæmolytic streptococcus carriers among operating room personnel (SURG. GYN. & OBST. 1936 xliii 338) and in a later paper (J. L. M. 1937 lxxviii 1332) showed that there is a seasonal incidence of hæmolytic streptococci in the nose and throat which reaches its height during March, April and May and tends to recede during the succeeding months. The same investigator and his associates have rendered the surgical profession a great service by their careful study of a fatal case of postoperative wound infection (p. 31) which as eventually shown to be due to a hitherto undescribed anaerobic bacillus of the gas gangrene group identical in its cultural and other characteristics with an organism recovered from the chromic acid output in use at the hospital during the period in which the patient was operated upon. The occurrence of such postoperative complications is not limited to one hospital or one section of the country but it is not often that the source of the infection is ascertained with certainty and that the facts are given in the publicity they deserve.

With reference to the occurrence of streptococcus wound infections Melencz says (loc. cit. p. 338). In the meanwhile (until this investigation could be completed) the operating staff practised very careful masking of both nose and mouth. Not a single case of postoperative wound infection with the streptococcus hæmolyticus has since occurred (a period of six months). In a footnote he adds that subsequently the development of another case led them to mask not only sterile assistants but everyone entering the operating room with the result that no other streptococcus infection developed.

In spite of this careful investigation and convincing demonstration of cause and effect there are many operating rooms in which only small mouth pieces are furnished for the sterile assistants with the result that their noses are completely uncovered. In the same operating rooms assistants, orderlies, internes and visiting doctors

come and go with no pretense of keeping their faces masked. To omit precautions which are so simple and easy to carry out seems little short of criminal negligence particularly at the seasons of the year when the incidence of hæmolytic streptococci in the nose and throat is known to be at its highest.

In connection with the above Cuizza's discussion of virulence tests of the streptococci present in cancerous ulcers preliminary to radical operation for cancer of the uterus is of special interest. This question has received particular attention in European clinics (Pribram, F. Zentralbl. f. Chir. 1936 l 137; Fuss, E. M. Ibid. 1936 l 140; Int. Abst. Surg. 1936 xliii 400-401) and although there is a considerable divergence of opinion among different workers on the subject the majority agree that utilization of virulence tests will help reduce the number of patients subjected to radical operations and to radium treatment when the presence of virulent streptococci makes even the simplest operative procedure a serious risk.

Nordmann's paper on corrective surgery following unsuccessful operations upon the stomach (p. 277) is an interesting contribution upon one of the most frequently discussed questions of gastro-intestinal surgery. Of particular interest is the fact that of twenty-seven secondary operations the corrective operation in four cases consisted of pylorotomy with preservation of the gastro-enterostomy and in four other cases of separation of the intestines from the stomach without further surgical treatment. All of these eight cases were followed by cure. Of eleven other cases subjected to radical operation (Billroth I in eight cases, Billroth II in three cases) all were cured and in every one of them the severely removed portions of the stomach showed a severe gastritis.

Pomeroi's report of the five year end results of radium treatment of carcinoma of the cervix (p. 291), Pfab's discussion of the operative treatment of pseudarthroses (p. 308) and Hatcher's report to the Council on Pharmacy and Chemistry of the American Medical Association upon the rectal administration of ether and oil in surgery and obstetrics (p. 313) are a few of many other interesting abstracts in this month's issues of the INTERNATIONAL ABSTRACT OF SURGERY.

INTERNATIONAL ABSTRACT OF SURGERY

APRIL 1928

ABSTRACTS OF CURRENT LITERATURE SURGERY OF THE HEAD AND NECK

EYE

Fenton R A The Differentiation Between Ophthalmic and Sinus Headaches 1 *Otol Rhinol & Laryngol* 927 xxxvi 1 00

Fenton reviews the development distribution and physiology of the cerebrospinal nerves of sensation and discusses the various normal and pathological factors exerting an influence upon the e nerves

He states that in the differentiation between ophthalmic and sinus headaches the patient's personal and family history the frequency of recurrence of the headache the patient's occupation and his exposure to irritants including climatic influences must be taken into consideration The examination should include a search for obstruction to nasal drainage nasal injuries inflammation and oedema septal and turbinal malformations allergic and toxic nasal neoplasms interference with the circulation and lymphatic drainage of the eye ocular inflammations and oedema an increase of ocular tension changes in the media changes in the retina and nerve insufficiency of the ocular musculature and refractive and accommodative errors

The particular group of nerves which is irritated must be determined When these are placed at rest the headache will be stopped or at least relieved temporarily Such rest may be effected by local ischaemia or anaesthesia and the avoidance of specific irritants and irritating tasks

The headache may be central in origin with symptoms referred to the eye or nose It may or may not be relieved by local measures Eye or nose symptoms may be diagnostic of a cerebrospinal cardiovascular gastro intestinal or renal ailment Headache may be psychic with symptoms referred to the eye or nose

It must be borne in mind that ocular and sinus headache may exist at the same time and that degenerative general disorders may increase slight ocular deterioration or nasal stasis into relatively serious complications

LESLIE L MCCOY M D

Goar E L Glaucoma Following Obstruction of the Central Vein of the Retina 1 *J Ophthalm* 1927 x 35 906

In the case reported by the author the glaucoma developed eighty two days after the thrombosis Medical treatment was tried but was unsuccessful A month after the onset of the condition the eye was enucleated At that time the blood pressure was high the blood showed chloride retention and a peripheral abscess of one tooth was found The tooth was removed When the patient was placed on a salt free diet the arterial hypertension and the hemorrhages ceased

The pathological report on the enucleated eye is given The essential changes were found in the media and intima of both arteries and veins in the retina The choroidal vessels were markedly thickened and congested

THOMAS D ALLEN M D

Lewis F P A Non Operative Treatment of Inflammatory Glaucoma *J Am M Ass* 1927 1 x x 2022

The author emphasizes the importance of light and heat in the treatment of hypertension particularly that associated with acute congestive conditions In combination with the dry radiant heat of an electric bulb he uses a glycerin solution and frequently foreign protein and dionin

He states that such treatment results in the relief of pain and a moderate reduction in the tension

THOMAS D ALLEN M D

Gradle H S A Conjunctival Drain of the Anterior Chamber An Operative Technique Used in Absolute Glaucoma *J Im M Ass* 1927 lxxvii 025

In the operation described in this article a tongue of conjunctiva is introduced into the anterior chamber to serve as a drain So far Gradle has used the procedure only in absolute glaucoma In this condition it has given exceptionally good results

THOMAS D ALLEN M D

F x L W Congenital Cataract A Plea for
Var ety n It Surg cal T e tm nt J A W
 1 9 7 1 49
Parker W R Cata t A t action The Com
parat R ults Obtain d by the Comb ned
Simple and Kn pp Torok Meth ds f P o
cedu J l W 4 0 7 1 5
Dunphy E B Loss of Vitreous in Cataract Ex
t a t on J 4 W 1 97 lxxxi 54

Fox states that when the periphery of the lens is clear in congenital cataract he does a small optical iridectomy in the nasal side of each eye (cataract usually bilate l) placing it so as to permit perfect binocular fixation. This is done under general anaesthesia. When capsular rema persist after previous needlings he removes the remna ts by gentle tract on through a corneal inci on. He states th t remoi l of the lens tact i l cal but not always pract c l.

PARKER review 300 cases f senile c ta ct ith reg l to the complication de l ping afte the c mbi ed simple and Kn pp Torok techniques. O bund ed case e e treated by each method. The complicati s ere sual defect loss of it e ou the format n f a secondary cata act a tig mat and delirium.

The b t v i ual results were obtained by the c mbi ed method. L ss of v t eous occ rred m t f eque tly in the Knapp techn q e. Spontancou haemorrhage occu el in i tance—a case n hich the combined method was employed. Prol pse of the iris o curred n 3 pe cent f the cases—n 6 in h ch the simple technique wa ued a d n n hich the Kn pp procedure was employ d. Pan ophthalm t s developed once following th simpl tech q e a d once after the Kn pp method. S cond y cat racts were most freque t afte the u e of the simple tech que and least frequent after the Knapp techn que. The incidence of astigmatism as the same in the cases tre ted by the comb ned and the Knapp proc dures. Delirium occurred n 3 ca es hich ere trated by the c mbi ed tech nique and in 1 case in hich the Kn pp p ocedu e as ued.

Parker con lude th t in selected c ses the mple o Knapp To ok meth d of e traction may g e as good results s a e obtain d with the combined method n un elected cases. He believes that in selected cases the combined method would g ve the best results and that th s pr cedure s undoubtedly the safe t.

DUNPHY re e s 560 case of cat ract ext action with the bject of classifying the complication ith th seve al types of operation a d determin g hether lo of itreou m le any considerable differe ce in the ultimate results. The com ations were polap e of the in iefect on u haemorrhage and loss f vit eous.

The 1 prolaped 13 ca es—9 t combined method and 4 treated by si t on. Infection followed in 13 cases tr combined method and 4 treated by the 1

operation. Expulsive haemorrhage resulted in 4 cases after the use of the combined method and in 1 case after simple extraction. There was loss of vitreou in 15 cases (8.3 per cent). It occurred in 7.1 per cent of the cases treated by combined e traction 0.67 per cent of those treated by simple extract on and 18.8 per cent of those in which the int acapsular techn que was used. Of the 215 pa tients with loss of vitreous only 74 returned for examination a year or longer after the operation. In 50 the acuity of vision was poor and in 6 the t eatment had completely failed.

Dunphy concludes that loss of vit eous wo ld occur much less frequently if e ery eye with cata act er prope ly anesthetized by means of the la. Lint inject on combined with either a deep orbital or a subconjunctival injection. His reco ds show that of the cases with loss of v t eous 62 per cent were operated upon befo e this practice was adopted.
 G O C E R McLENNAN MD

R nne ll The D ff nt Types f Defects of th
F eld of Vision J A W A 9 7 1 xi
 86

Roe ne v Among the most frequent and char acteristic types of defects of the field of vision is the o called defect in the bundle of erve fibers wh h aris as a consequence f the cou se of the erve across the tina. From the asal half of the papilla they exte d adially hereas from the upper and l er edge they tend in large curve abo e a d bel the m cul.

The pper a d lo er bundles of nerve fibers meet n the temporal p t of the etin. The hori ont l me dian a rect l near r phe which from the m cul e tend quite ut to the temporal m id an of the tina.

He desc bes i detail and ith dagrams the ar ous defects th field of vision caused by injury or pathological co ditions beaking the conti uity in the cour e f the nerve fibe s.

The defects in the nerve bundle occur in a great mber of diseases. They are to be not d mo t fire q ely n glaucoma. Th defect in the v i ual field at any ha ts origi in the all of the glaucomatous e cavat on.

Other condit ns discussed are opt c neuritis vascular defects and condit ons resulting from the arragement of fibers. Th author e pla ns how the defects in the field a e p oduced by these va i us abnormal ties.
 LESLIE L MCCOY MD

Lijo P J Photography of th Eyeg nd
(L f t ff d f f d d j) R d f f
 9 7 358

Bedell A. J. A Photographic Study of Holes in the Macular Region and Associated Changes
Am J Ophth 19 7 35 890

Bedell says We are not unmindful of the fact that an actual hole in the macula has not been demonstrated pathologically but there are many reasons for this the most important one being that eyes so affected are seldom subjected to pathological section He reminds us however that depressed areas are known to occur and he includes in his article several photographs of a number of such areas with and without surrounding pathological changes
THOMAS D. ALLEN M.D.

Lister Sir W. T. Some Points in Connection with Detachment of the Retina
Br M J 19 7 1 1127

Lawson Sir A. The Value of Antiseptics in Modern Ophthalmic Surgery
Br M J 19 7 1 1128

LISTER urges more thoroughness of examination in cases of retinal detachment including the use of the slit lamp and more rational treatment In general in this condition the retina is dragged in pushed in or floated in When it is dragged in by cicatricial bands as in retinitis striata treatment is of little avail When it is dragged in by vitreous bands division of the bands is beneficial but if the vitreous is fibrous treatment is useless Exudative cases with fluid poured into the interretinal space are at times amenable to medical or surgical treatment alone or combined When the retina is floated in by fluid passed through holes in it treatment is not apt to be successful

If treatment is instituted it should be thorough and include rest in bed constitutional treatment and measures to remove interretinal exudates such as mercury inunctions the use of potassium iodide the application of blisters to the temples and subconjunctival injections Surgically a scleral puncture is indicated

LAWSON discusses asepsis of the ophthalmic field from the standpoint of the conjunctival sac the instruments and dressings the surgeon's fingers and the lish area

The normal sac is in itself aseptic and requires no preliminary treatment but before operation the surgeon must assure himself that the sac is healthy and free from discharge A simple method of determining whether the eye is free from discharge consists in placing a pad over it for a few hours When a discharge is present measures must be taken to remove it before operation is undertaken

Contamination from instruments is now a negligible factor Contamination from the handling of instruments can be prevented by frequent washing of the hands with alcohol and care to avoid handling that part of each instrument which touches the eye To prevent infection from sutures the author recommends the instillation of a 1:1000 solution of flavine when the stitches are put in and twice daily thereafter To prevent or decrease infection from

the lish area he uses flavine or a 2 per cent solution of protargol
GEORGE P. McVULF M.D.

Van Heuven J. A. Some Remarks on Lagrange's Surgical Treatment of Detachment of the Retina
Brit J Ophth 1927 xi 593

Van Heuven discusses an operation to which the name colmatage has been given In this procedure a triple row of punctures is made with the galvanocautery or the thermocautery in the sclerotic coat after the conjunctiva has been loosened around the cornea The conjunctiva is then sutured in place In practically every case of detachment of the retina the intra ocular tension is lowered After colmatage the pressure is increased and the detached retina is pressed down against the wall of the eye According to Lagrange the increase in pressure after the operation is due to the formation at the cauterized spot of a constricting ring where the fluid of the eye normally escapes

Favorable results cannot be expected from colmatage in cases of detachment of long standing cases with extreme myopia or cases in which the lens is absent In traumatic detachment of the retina in normal eyes colmatage is more favorable than conservative therapy Although reattachment may occur under treatment with rest in bed bandaging the use of atropine etc relapses almost always occur in such cases Colmatage never has an injurious effect

To determine the cause of the increase in intra ocular pressure after colmatage the author performed a number of experiments on rabbits Estimations of the percentage of albumin in the fluid of the anterior chamber indicated that one factor is an increase in the albumin content Other factors are the vascular dilatation produced by the stimulus applied to the wall of the eyeball around the cornea and the constricting ring produced by the operation which impedes the discharge from the eyeball

Van Heuven states that the condition existing in detachment of the retina may be conceived of as follows

In a space filled with liquid—the eyeball—a partially detached membrane is suspended The membrane is therefore surrounded on both sides by liquid Pressure on one part of this liquid mass does not force the membrane against the wall because it is prevented from doing so by the fluid at the back Because of the great increase in the albumin content in a portion of the retina there is an osmotic action in which the retina acts as a semipermeable membrane This hypothesis explains why fluid enters in front of the retina and is discharged at the back
LESLIE I. MCCOY M.D.

Oliver K. S. and Crowe S. J. Retrobulbar Neuritis and Infection of the Accessory Nasal Sinuses
J. Clin. Otolaryngol. 1927 vi 593

The authors state that acute neuritis of the optic nerve may result from (1) syphilis (2) tuberculosis (3) acute infectious diseases such as erysipelas

diarrhoea vomiting and loss of weight. In such cases there should be close co-operation between the pediatricist and the otologist in deciding as to the advisability of operation. If the infant is in good condition incision of the drum head may suffice.

The author operates under local anesthesia. He attributes his fatalities to the patient's general condition. **GEORGE R. McALLIFF, M.D.**

NOSE AND SINUSES

Schmiegelow, E. Clinical Remarks on the Use of Surgical Diathermy for Malignant Tumors in the Anterior Air Passages. *La Jugo cope* 97 xxx 181

The author states that in the treatment of malignant tumors of the nose diathermy gives better results than are obtained by ordinary surgical methods. Electrocoagulation prevents the spread of the disease by contact or metastasis. Good results can sometimes be obtained even when the condition is inoperable. In one of Schmiegelow's cases an extensive fast growing sarcoma of the upper jaw was successfully destroyed by surgical diathermy. The extent of the operation should not be influenced by cosmetic considerations. Postoperative facial defects can be remedied by plastic operation.

The author reviews eight cases of tumors of the upper jaw three of which were cured. He regards electrocoagulation as the most effective and least disagreeable method of destroying malignant growths of the upper jaw. In buccal carcinoma it seals the blood and lymph channels and thus lessens the danger of local recurrence and metastasis.

In the treatment of localized tumors of the tonsil surgical excision gives very good results but electrocoagulation may also be successful.

In cancer of the larynx the method of attack must be carefully chosen. For localized cancer thyrotomy with excision of the diseased vocal cord is the method of choice. More extensive growths require total resection of the larynx or destruction of the lesion by electrocoagulation. The destructive value of radium and the roentgen rays is doubtful.

In certain forms of cancer particularly cancer of the upper larynx and sinus pyriformis surgical diathermy is an excellent method. The author uses deep chloroform narcosis and suspension laryngoscopy in the treatment of these conditions. He reports several cases of cancer of the epiglottis in which successful results were obtained by electrocoagulation. **W. M. STANLEY, M.D.**

Dern, L. W. The Influence of Paranasal Sinus Infection in Infants and Young Children upon Certain Systemic Conditions and the Influence of Certain Systemic Conditions in Infants and Young Children upon the Method of Treating Chronic Existing Sinusitis. *Ill. Med J.* 927 xxx 1933

In infants and young children a focus of infection in the nasal sinuses may cause a cardiac lesion, rheu-

matic fever, chorea, nephritis, pyelitis, cyclic vomiting, deforming periarthritis, anemia, anorexia, malnutrition or a chronic digestive disturbance. Remote effects more or less peculiar to paranasal sinus disease are bronchiectasis, asthma and the cholera infantum syndrome.

Particularly in cases with systemic complications there is no infallible rule for the treatment of paranasal sinus disease. The combined clinical judgment of the pediatricist and the laryngologist is necessary to determine the proper procedure. The choice of treatment depends to some extent upon the systemic condition. In certain cases of cholera infantum immediate drainage of infected sinuses may be imperative. In cases of nephrosis and diabetes on the other hand it may be necessary to avoid all traumatism of the mucous membrane.

Illustrative cases are discussed in detail. The treatment is reviewed and the end results are reported. The importance of the pediatricist in the care of such cases is repeatedly emphasized.

In young children the treatment of choice for chronic paranasal sinus infection is dietetic and climatic. In bronchiectasis treatment of co-existing chronic suppurative sinusitis has given the best results. Diet is an important factor also in this condition. Even in children it is occasionally necessary to operate on the ethmoid sinuses.

W. M. PATON, M.D.

Emerson, F. P. The Varying Symptomatology of Chronic Maxillary Sinusitis Depending on the Pathology Present in the Olfactory and Laryngeal Regions. *Ill. Med J.* 927 xxx 947

Chronic catarrhal maxillary sinusitis results in thickening of the mucous membrane which favors virulent infection and the development of empyema. The prominent signs are a persistent unilateral or bilateral mucoid discharge.

Cases of chronic maxillary sinusitis resulting from a suppurative process may be divided into three groups: (1) those showing a thickened membrane and free pus; (2) those showing a thickened membrane and no pus; and (3) those in which the lining membrane is undergoing a degenerative process. In the first group the common signs are a purulent nasal discharge and pharyngeal irritation. In exacerbations of the chronic process there may be pain or discomfort over the affected antrum and an increase in the discharge. The discharge varies from a thin fetid secretion to a purulent or mucopurulent discharge. Since the pathological changes are confined to the superficial tissues secondary involvement of distant organs is not common. Acute exacerbation however may be followed by disastrous results. An illustrative case is reported.

In cases of the second group the relationship of the sinusitis to systemic conditions is often overlooked. Acute exacerbations of the local process may be followed by systemic complications leading to chronic myeloidism or death. There is increasing evidence that involvement of the mucoperiosteum in

these cases is a menace to the general health. When the mucoperiosteum is involved the entire lining membrane must be removed.

Seven illustrative cases are reported in detail with regard to the symptoms, the pathological change and the results of operation.

In the third group of cases there are usually no symptoms until an acute exacerbation occurs. During the acute phase the symptoms are those of a subacute nasopharyngitis. Usually there is no pain on the affected antrum. Diagnostic biopsy of the antrum may show gelatinous mass or give negative result. The whole mucosa undergoing a degenerative change. When acute exacerbations are followed by systemic symptoms, the entire lining membrane must be removed in the quiescent interval. Typical cases are reported. W. M. I. & M. D.

NECK

Renhoff, W. F. Jr. Hyperthyroidism and Its Relation to Benign Tumors of the Thyroid Gland. *J. M. J.* 9, 9.

The theory of Mobius that exophthalmic goiter due to an excess of normal function of the thyroid gland is supported by the following clinical and experimental evidence:

(1) The production of the signs and symptoms of hyperthyroidism and the relief of hypothyroidism by the administration of thyroid extract.

(2) The constant association of hyperthyroidism with hypertrophy and hyperplasia of the parenchyma of the thyroid gland and the fact that during a remission obtained by the administration of iodine the physiological status is restored to approximately normal within a short time of the hyperplastic thyroid parenchyma to a microscopic appearance more nearly resembling that of the normal gland.

(3) The decrease in the basal metabolic rate deposition of colloid and in the output of the gland during an artificially induced spontaneous remission.

(4) Elimination of the basal metabolic rate following the administration of thyroid extract and also in a patient with hypertrophy and hyperplasia of the thyroid parenchyma.

(5) The absence of any other constant pathological lesion in the sequence other than hypertrophy and hyperplasia of the thyroid gland in cases of hyperthyroidism.

(6) The cure of the hyperthyroidism by the surgical removal of 90 per cent of the thyroid parenchyma.

In ten cases of acute fulminating hyperthyroidism after an atypical remission the changes in the histological structure of the thyroid were as follows: (1) an increase in the amount of colloid (2) a decrease in the connective tissue in the gland (3) a decrease in vascularity (4) an increase in the size and equality of the acini (5) a decrease in the height of the epithelium (6) a decrease in the cytoplasmic content of the epithelial cells and (7) a decrease in the mitotic and lymphocytic infiltration. The microscopic structure of the thyroid gland therefore underwent a

change from a state of extreme hypertrophy to one approximating the normal histological structure.

If the period of involution is prolonged the histological changes in the thyroid exceed the usual average amount of involution, especially in certain areas. These areas become enlarged and form nodules which may be divided into three groups: (1) those that form colloid cysts (2) localized and encapsulated areas of delayed colloid containing acini histologically indistinguishable from the so-called colloid adenomata and (3) areas or lobules in which the involution or regression has reached the state of degeneration, especially toward the center of the lobule which is characterized by a disparity in size and paucity of disintegrating acini in an abundant edematous stroma fibrous tissue and extracellular colloid.

These areas of hyperinvolution or degenerative regressive tumor have been termed involutonal bodies.

It is therefore possible for nontoxic goiter to develop from the spontaneous or artificial involution of a smooth diffuse hypertrophy and hyperplasia of the thyroid gland during a remission in cases of hyperthyroidism.

From a study of 100 cases of nodular goiter the author has come to the conclusion that the term toxic adenoma is incorrect and should be abandoned. He believes that the clinical diagnosis should be diffuse or nodular goiter with or without hyperthyroidism and the macroscopic pathological diagnosis diffuse or nodular goiter with or without hypertrophy or hyperplasia. J. H. R. Wooten & M. D.

Else, J. E. Recurrence of the Thyroid Gland after the Operation of Recurrent Cysts. *J. A. M. A.* 9, 7, 1, 2, 53.

The prevention of recurrent goiter is an important problem in the treatment of thyroid disease. Recurrences may be classified as: (1) pseudorecurrences, (2) recurrences without symptoms and (3) recurrences with symptoms.

Pseudorecurrences are generally the result of operation or permanent lesions or insufficient operation.

Recurrences without symptoms are characterized by a definite enlargement of the remnant thyroid without the symptoms of hyperthyroidism and with a normal or subnormal basal metabolic rate. The following pathological processes have been recognized: (1) colloid goiter which is probably the most common form (2) diffuse adenomatous goiter and (3) true adenoma. Patients with goiter of the true colloid type are relieved by dissection of the thyroid. Diffuse adenomatous goiters and true adenomata are not benefited by medical treatment and the majority of them probably become toxic.

In the group of recurrence of goiter with symptoms are placed cases with a history of complete relief after the operation followed by redevelopment of the goiter and recurrence of its toxicity. In such cases all three of the common types of goiter

goiter—toxic hyperplastic goiter diffuse adenomatous goiter and true adenoma—have been found.

A study of patients with recurrences and of the tissues removed in a subsequent operation showed that the most common change is an increase in colloid. The limited portion of thyroid left was rendered sufficient by the added stimulation to produce enough thyroxin but in doing so it produced an overamount of colloid and a simple colloid goiter.

In experiments on dogs hyperplasia and hypertrophy were found after partial thyroidectomy but were more marked when the animals did not receive iodine during the period of regeneration. The hyperplasia was most marked in cells that could not be identified with any acini and were regarded as being derived from the interacinar cells described by Weber. In the earlier portion of the regeneration period mitotic figures could be seen in the cells lying between the acini but in the later portion of the regenerative period these cells occurred in such masses that they could not be positively identified as having sprung from the interacinar cells. In one animal there was a definite tubular formation in these cells such as is sometimes seen in the masses of cells found in colloid goiter of long standing.

With the exception of a forty five day dog the thyroid gland in the animals receiving iodine was approximately normal after the twenty second day except that in some instances it showed an increase in the undifferentiated cells lying between the acini. In the forty five day dog there was still hypertrophy of the intra acinar cells.

In the dogs not receiving compound solution of iodine the hyperplasia and hypertrophy were greater and there was an increase in the amount of colloid in the twenty two day twenty six day twenty eight day thirty day and thirty eight day animals. In the thirty and thirty eight day dogs the increase was so great that it presented the appearance of a colloid goiter. The thirty nine day dog had a colloid goiter at the time of operation. At the end of the period the colloid was less than normal but tubular formation fetal acini and areas of undifferentiated cells were present. The twenty and fifty one day dogs developed thyroids that had the typical appearance of toxic hyperplasia goiter of mild degree without symptoms. In the author's opinion the study of the entire series warrants the conclusion that recurrence following operation depends upon the control of regeneration and that in animals thyroid regeneration can be controlled by compound solution of iodine.

In man recurrence of goiter is not infrequent. If thyroid regeneration in animals may assume the proportion of a goiter when uncontrolled it is reasonable to believe that the same may occur in man. The author arrived at this conclusion empirically about two years ago and then began giving compound solution of iodine after as well as before the operation for the purpose of controlling regeneration. Later he gave a small amount of iodine to secure proper thyroid function. It has been only

two years since this practice was begun but the author has not seen any evidence of recurrence in that time. His routine treatment is as follows:

1 The thyroid is saturated with iodine previous to the operation by the administration of from 10 to 5 minims of compound solution of iodine three or four times daily according to the severity of the hyperthyroidism. Patients with non toxic adenoma or diffuse adenomatous goiters are given 10 minims three times daily for two or three days.

Following the operation the thyroid is kept saturated with iodine during the period of regeneration by the administration of from 15 to 5 minims of compound solution of iodine by rectum as soon as the patient is returned to bed. This dosage is repeated three or four times daily according to the severity of the hyperthyroidism preceding the operation. As soon as the patient is able to take the iodine by mouth 10 minims are given three times a day for a month. The dose is then cut down to 10 minims daily for another month.

3 A sufficient amount of iodine to meet the needs of the thyroid gland is administered continuously. For this purpose the iodized salt is prescribed if other members of the patient's family have normal thyroid glands otherwise the patient is instructed to take 10 mgm of iodine in a chocolate tablet daily.

MERLE R HOON MD

Simon F Heart Block After Goiter Operations
(Ueber Herzblock nach Kropfoperation n) Zen
trabl f Cl r 1927 liv 060

Persons suffering from goiter always have poor cardiac function. The cause is hyperfunction or hypofunction of the thyroid and mechanical pressure upon the trachea blood vessels and nerves. Accordingly there is to be differentiated a hyperthyroid from a hypothyroid and a dyspnoeic from a congestive heart block due to goiter. The operation for goiter is incidentally also an operative treatment of the heart. If the operation is done under local anesthesia the heart is relieved from the cause of its functional disturbance. This explains why cardiac complications are relatively rare during operations for goiter. In 128 cases operated upon during the last two years they occurred only once.

However cardiac disturbances may result from injury of the vagus nerve. The vagus does not always lie within the vascular sheath. Particularly in cases of tumor it may run in front of the vessels and therefore may be injured easily. Mechanical irritation of the vagus is much more dangerous than vagal section. It is followed by slowing of the pulse which may lead to fatal syncope. The heart may be injured also by respiratory disturbances caused by irritation of the vagus. These produce spasmodic attacks of coughing and dyspnoea gasping respiration variations in the rhythm and cessation of respiration (bronchial spasm swelling of the mucous membrane).

Eden's theory that pneumonia following operations for goiter is due to irritation of the vagus is

not accepted by the author. Elenoperates under general anesthesia and in Simon's opinion his pulmonary inflammations are due to this fact. In the prevention of pneumonia the author has seen as good results from the postoperative injection of aseptic as the retained by Elen.

Simon reports a case of vagus heart block following an operation on a woman fifty years of age. The patient was partially paralyzed and partly retarded cerebral gesture as well as by excessive calcium symptom which could not be successfully the usual stimulant. A definite attribute to muscular weakness. On the third day the fever with lehrum loss in cardiac function (regular vital pulse) as at the age of thirty to forty a minute aural contraction in apical recession. Larynx and larynx of the trachea. After the administration of atropine the respiratory impairment of the trachea. A tracheal treatment of the respiratory tract.

At the time of the operation the patient was in a culture but the heart had been injured by the operation for the operation was evidence of hyper trophy and dilatation. The end of the operation could be the mechanical pressure of the operation on the larynx of the neck. It is possible that the patient also injured by the operation. The pressure of the operation that at the time of the operation there is a highly probable on it.

As suggested by a slight period of paralysis of the recurrent laryngeal nerve and slight irregular dilatation of the pulmonary artery. In the temperature to a degree of the larynx of the effect of the operation. The total mortality of the operation. The clinical picture as evidence by the marked improvement of the patient. The patient was in a culture but the heart had been injured by the operation. The pressure of the operation that at the time of the operation there is a highly probable on it.

Thomson Sir St C. L. yngofisured in the four cases of the larynx. Four cases in medical men who are not in the practice of the operation. The four cases of the larynx. The four cases of the larynx. The four cases of the larynx.

The author reports four cases of tracheal stenosis of the larynx in medical men. In all the lesions as limited to the cord and did not invade the subglottic region. The examination of mobility. The diagnosis rested chiefly on the macroscopic appearance of the lesion. The microscopic examination by biopsy. Syphilis and tuberculosis excluded by the usual methods of investigation. Laryngostomy with removal of the tracheal stenosis. In order to secure complete protection against the escape of septic material into the bronchi and trachea, as done in the operation of the trachea. The trachea was found out of the larynx and trachea. The bleeding was controlled by packing. Coalescence as uneventful and recovery rapid. In the case of the trachea and an apparently permanent cure were obtained.

The author concludes that cases suitable for laryngostomy are those with the gross limitation of mobility of the larynx and no subglottic infiltration. W. T. PA. M.D.

Collins I. Laryngeal myeloma in Cancer of the Larynx. L. Z. 1908.

The following report is limited practically to cases of tracheal stenosis due to cancer of the larynx. The cases of the larynx. The cases of the larynx. The cases of the larynx.

The cases of the larynx. The cases of the larynx. The cases of the larynx. The cases of the larynx.

The cases of the larynx. The cases of the larynx. The cases of the larynx. The cases of the larynx.

The cases of the larynx. The cases of the larynx. The cases of the larynx. The cases of the larynx.

The cases of the larynx. The cases of the larynx. The cases of the larynx. The cases of the larynx.

The cases of the larynx. The cases of the larynx. The cases of the larynx. The cases of the larynx.

J. P. K. N. M.D.

SURGERY OF THE NERVOUS SYSTEM

BRAIN AND ITS COVERINGS CRANIAL NERVES

Greyx and Loubat Indirect Injury of the Brain Treated by Trephination One and One Half Years Ago Retrospective Diagnostic Considerations (Traumatisme indirect de l'encephale trepanation datant d'un an et demi considerations diagnostiques retrospectives) *J d med de Bordeaux* 1917 116 69

A man twenty four years of age was kicked on the chin during a football game and three hours later developed jacksonian epileptic attacks which began with tingling in the left hand followed by loss of consciousness and generalized convulsions with biting of the tongue. Four of these attacks occurred. The axillary temperature was 37.4 degrees F and the pulse 90. Lumbar puncture showed no increase in pressure. The spinal fluid was slightly rose colored as the result of accidental injury of blood vessels during the puncture. Subdural hemorrhage from the right middle meningeal artery was suspected but trephination on the right side three days later revealed no lesion. Cerebral puncture was negative. On postoperative lumbar puncture the spinal fluid showed no increase in pressure, no hemolysis and no tubercle or other bacteria but a slight lymphocytosis (twenty five lymphocytes) was found. The sugar content was 0.86 gm per liter and the albumin content 0.6 gm per liter. The Wassermann test was negative. In the year and a half that have elapsed since the operation the patient has remained well.

The authors doubt that the condition was traumatic. They are inclined to believe that the trauma acted indirectly to awaken or accelerate the evolution of a localized brain disturbance possibly of an infectious nature. This opinion is based on the slight fever the pulse rate the slight lymphocytosis the increased sugar content of the spinal fluid the free interval between the injury and the jacksonian attacks and the absence of compression.

WALTER C BURKET M D

Swift G W Choked Disk in Intracranial Lesions the Mechanical Factor in Its Causation *N Y J Med* 1917 1 579

The chief factors to which papilloedema has been ascribed are pressure upon the cavernous sinus with resultant blockage of the ophthalmic and the central retinal veins (von Graefe 1866) obstruction of the lymph flow from the eye by pressure (Schmidt Rimpler) inflammatory changes (Leher 1881) vasomotor disturbances (Jackson and Benedikt) chemical changes from metabolic products (Kruckmann and others) and disturbance of the arterial venous or cerebrospinal fluid circulation.

The author cites cases of choked disk resulting from aneurism and thrombosis of large basilar arteries skull fractures with cerebral damage influenza pneumonia with resultant engorgement of the brain and stigmata in the intracranial sinuses and acute pneumonia with oedema and an increase in the intracranial pressure.

The article includes a number of illustrations showing the main vessels of the optic disk and choroid the venous circulation of the brain and skull the effect of blockage at different locations and various types of choked disk due to aneurisms and tumors.

In cases of tumor of the optic nerve atrophy results but papilloedema does not develop because there is no interference with the venous return. Aneurism of the circle of Willis produces choked disk only when the venous sinuses are blocked. Lesions in the cerebellopontine angle produce first unilateral and later bilateral choked disk. Blockage of the transverse sinus results in choked disk early if the large sinuses are cut off or the aqueduct of Sylvius is obstructed with resultant hydrocephalus. These lesions are associated with a higher intracranial pressure than lesions situated elsewhere.

The time of appearance of choked disk depends upon the location of the lesion. Direct pressure against the sinuses causes early choking whereas indirect pressure such as occurs in oedema and hydrocephalus produces a late papilloedema. The cerebrospinal fluid acts as a factor only by increasing the general pressure and not by extension through the vaginal sheath of the optic nerve.

The article is supplemented by a bibliography.
ALBERT S CRAWFORD M D

Shuster B H Intracranial Complications of Otic Origin with Reference to Diagnosis and Management *L Y J Otolaryngology* 1917 1 897

The author discusses conditions that may arise within the head as the result of infection of the ear—extra lural and subdural abscess sinus thrombosis meningitis labyrinthitis and cerebral abscess.

Cases of chronic otitis media may be divided into two general groups—those with a frank discharge and those with a mild recurring otorrhea. In the first group intracranial complications are rare. Mastoiditis often has a tendency to become cured without operation. After operation in this condition some variation in the temperature pulse and respiration is to be expected but usually subsides in from seven to ten days. Pain restlessness and insomnia following the operation also cease as a rule but if they do not the possibility of an intracranial complication must be considered. First however all other causes must be ruled out. A

tion of the fluid its localization depends upon a proper conception of the results of such obstruction on the ventricular system. Any intracranial neoplasm of sufficient size to produce an increase in the intracranial tension will cause variations in the position, size and shape of the ventricular system. In some cases these variations are the only means of localizing such tumors and it is in such cases that ventriculography is indicated.

The technique of replacing the fluid in the ventricles by air and making the ventriculograms is described in detail. The chief difficulty in ventriculography is the interpretation of the shadows seen on the roentgen ray plates. The most important single factor in the avoidance of errors in localization is complete removal of the fluid from the ventricles. When this is done any abnormalities in the ventricular outline must be due to pathological obstruction rather than to the trapping of unabsorbed fluid in one of the ventricular horns.

Broadly considered intracranial tumors cause asymmetrical variations when they lie within the cerebral hemispheres lateral to the midline and impinge directly upon the ventricles and produce symmetrical variations when they obstruct the free circulation of the cerebrospinal fluid.

The differentiation of supratentorial and subtentorial lesions is considered in detail. Grant emphasizes that in the study of the findings of ventriculography the clinical findings should always be borne in mind. He summarizes in a table the results of ventriculography in a large series of cases collected from different clinics. In about 23 per cent of the cases the tumor was localized from the ventriculogram alone, the neurological findings being inconclusive.

SOSMAN discusses intracranial lesions from the standpoint of the ordinary roentgenogram and describes the roentgen signs of skull lesions. With few exceptions lesions of the skull are similar to those of other bones; they include injuries, anomalies, and deformities, inflammations and repair and primary and secondary new growths.

In the diagnosis of brain tumors the roentgen ray may give general or localizing evidence or better indirect and direct evidence. The general signs are merely those of increased intracranial pressure and are of comparatively little value. Occasionally displacement of a calcified pineal shadow may furnish valuable evidence as to the side of the lesion. Direct evidence of a brain tumor is the visualization of the tumor by means of a calcium deposit in the tumor mass or changes in the adjacent bone caused by the neoplasm. Only about a third of intracranial new growths give such evidence. Some of these are described minutely and shown by roentgenograms. While the roentgen ray is of considerable value and a decided help in certain cases, in the majority it is either of no help or merely confirmatory. A tumor previously unsuspected previously unlocalized or of a type other than that suspected is identified in less than 10 per cent, but the positive benefits derived in

that 10 per cent make it almost imperative that all patients believed to have a brain tumor be given the benefit of a thorough roentgen ray examination.

ADOLPH HARTUNG, M.D.

Peet, M. M. Pituitary Adenomatoma. A Report of Three Cases. *Arch. Surg.* 1927, xv, 829.

Pituitary adenomatoma are solid or cystic benign or local malignant tumors containing enamel or enamel forming tissue and developing from epithelial rests of the embryonic hypophyseal duct. Several types of tumors or tumor cysts in the sella and suprasellar regions have been described but there is considerable confusion as to their classification and etiology. The most common tumor of the hypophysis is now regarded as an adenoma. The cysts are believed to develop from embryological remnants of the hypophyseal duct proper or from its extreme upper portion the pouch of Rathke. Cysts or tumors arising from the duct are lined with squamous epithelium and those arising from the pouch of Rathke with cylindrical frequently ciliated epithelium.

Cysts arising from Rathke's pouch are primarily intrasellar in origin, whereas tumors of the hypophyseal duct because of the rotation of the pituitary during its development may occur at any point from the tuber cinereum at the base of the third ventricle downward along the infundibulum to the anterior hypophyseal lobe. Erdheim has shown that epithelial cell rests, remnants of the hypophyseal duct, can be demonstrated in 80 per cent of normal adults.

As compared with pituitary adenomata, the squamous epithelial tumors originating in the hypophyseal duct are relatively rare. They may be classified histologically as (1) benign papillary cysts or intracystic papillomata, (2) benign or locally malignant adenomatoma, and (3) spindle cell carcinoma.

Adenomatoma constitute about 50 per cent of tumors arising in the hypophyseal duct. They occur with equal frequency in both sexes and are most common in the second decade of life.

The clinical picture varies with the location of the tumor, but in nearly all cases there are symptoms of hypopituitarism and obesity. Many cases present the classical Froelich syndrome. Occasionally there is infantilism without adiposity. In older patients who have developed normally the growth of the tumor tends to reverse the secondary sexual characteristics. Drowsiness is a common symptom and is apparently not related to the degree of adiposity. In the author's cases the basal metabolic rate was definitely subnormal. In none of the cases reported has glycosuria or polyuria occurred.

Changes in the ocular fundi and defects in the visual fields depend upon the location of the primary growth. In suprasellar subchiasmatic lesions primary optic atrophy is the rule.

If the tumor develops upward and backward it obstructs the foramina of Munro and causes hydro-

tion of the fluid its localization depends upon a proper conception of the results of such obstruction on the ventricular system. Any intracranial neoplasm of sufficient size to produce an increase in the intracranial tension will cause variations in the position size and shape of the ventricular system. In some cases these variations are the only means of localizing such tumors and it is in such cases that ventriculography is indicated.

The technique of replacing the fluid in the ventricles by air and making the ventriculograms is described in detail. The chief difficulty in ventriculography is the interpretation of the shadows seen on the roentgen ray plates. The most important single factor in the avoidance of errors in localization is complete removal of the fluid from the ventricle. When this is done any abnormalities in the ventricular outline must be due to pathological obstruction rather than to the trapping of unexpired fluid in one of the ventricular horns.

Broadly considered intracranial tumors cause asymmetrical variations when they lie within the cerebral hemispheres lateral to the midline and impinge directly upon the ventricles and produce symmetrical variations when they obstruct the free circulation of the cerebrospinal fluid.

The differentiation of supratentorial and subtentorial lesions is considered in detail. Grant emphasizes that in the study of the findings of ventriculography the clinical findings should always be borne in mind. He summarizes in a table the results of ventriculography in a large series of cases collected from different clinics. In about 23 per cent of the cases the tumor was localized from the ventriculogram alone the neurological findings being inconclusive.

SOSMAN discusses intracranial lesions from the standpoint of the ordinary roentgenogram and describes the roentgen signs of skull lesions. With few exceptions lesions of the skull are similar to those of other bones they include injuries, anomalies and deformities, inflammations and repair and primary and secondary new growths.

In the diagnosis of brain tumors the roentgen ray may give general or localizing evidence or better indirect and direct evidence. The general signs are merely those of increased intracranial pressure and are of comparatively little value. Occasionally displacement of a calcified pineal shadow may furnish valuable evidence as to the side of the lesion. Direct evidence of a brain tumor is the visualization of the tumor by means of a calcium deposit in the tumor mass or changes in the adjacent bone caused by the neoplasm. Only about a third of intracranial new growths give such evidence. Some of these are described minutely and shown by roentgenograms. While the roentgen ray is of considerable value and a decided help in certain cases in the majority it is either of no help or merely confirmatory. A tumor previously unsuspected previously unlocalized or of a type other than that suspected is identified in less than 10 per cent but the positive benefits derived in

that 10 per cent make it almost imperative that all patients believed to have a brain tumor be given the benefit of a thorough roentgen ray examination.

ADOLPH HARTUNG, M.D.

Pituitary Adamantinomata. A Report of Three Cases. *Arch Surg* 1927 xv 829

Pituitary adamantinomata are solid or cystic benign or local malignant tumors containing enamel or enamel forming tissue and developing from epithelial rests of the embryonic hypophyseal duct. Several types of tumors or tumor cysts in the sella and suprasellar regions have been described but there is considerable confusion as to their classification and etiology. The most common tumor of the hypophysis is now regarded as an adenoma. The cysts are believed to develop from embryological remnants of the hypophyseal duct proper or from its extreme upper portion the pouch of Rathke. Cysts or tumors arising from the duct are lined with squamous epithelium and those arising from the pouch of Rathke with cylindrical frequently ciliated epithelium.

Cysts arising from Rathke's pouch are primarily intrasellar in origin whereas tumors of the hypophyseal duct because of the rotation of the pituitary during its development may occur at any point from the tuber cinereum at the base of the third ventricle downward along the infundibulum to the anterior hypophyseal lobe. Erdheim has shown that epithelial cell rests remnants of the hypophyseal duct can be demonstrated in 80 per cent of normal adults.

As compared with pituitary adenomata the squamous epithelial tumors originating in the hypophyseal duct are relatively rare. They may be classified histologically as (1) benign papillary cysts or intracystic papillomata (2) benign or locally malignant adamantinomata and (3) spindle cell carcinoma.

Adamantinomata constitute about 50 per cent of tumors arising in the hypophyseal duct. They occur with equal frequency in both sexes and are most common in the second decade of life.

The clinical picture varies with the location of the tumor but in nearly all cases there are symptoms of hypopituitarism and obesity. Many cases present the classical Froelich syndrome. Occasionally there is infanthism without adiposity. In older patients who have developed normally the growth of the tumor tends to reverse the secondary sexual characteristics. Drowsiness is a common symptom and is apparently not related to the degree of adiposity. In the author's cases the basal metabolic rate was definitely subnormal. In none of the cases reported has glycosuria or polyuria occurred.

Changes in the ocular fundi and defects in the visual fields depend upon the location of the primary growth. In suprasellar subchiasmatic lesions primary optic atrophy is the rule.

If the tumor develops upward and backward it obstructs the foramina of Munro and causes hydro-

cephalus and choked disk with simple contraction of the visual field. The roentgenogram may show calcification above the sella. If the tumor grows downward, papilloedema defect will appear in the lower quadrant of the visual field and temporal homonymous hemianopsia will result.

Lesions up to the third ventricle and down along the chiasm and optic nerves usually produces a combined picture of incase intracranial pressure and primary optic atrophy with defect in the visual field.

The X-ray picture depends upon the site of the adamantoma. When the tumor develops in the anterior horn of the third ventricle, the only enlargement of the sella turcica is the expected. It may appear first as a simple increase in size of the inferior horn of the sella or of the anterior or posterior processes. When the tumor extends upward into the third ventricle, the sella may appear normal even when growth has reached considerable proportions or the picture may be characteristic of a primary intrasellar growth. The most characteristic antigenic observation is a suprasellar shadow. Calcification in the region is practically always in the form of a cystic adamantinoma.

The final diagnosis must depend upon microscopic examination. The latter reveals an adenocystic epithelioma usually with columnar cells in palisade formation at the periphery of the epithelial masses.

The adenoventriculitis is probably due to the deficiency of hypophyseal function resulting in cholesterol deposits within the tertiary choroid plexus.

The mortality of all treatment has been high. Operation is the only hope of improvement.

The author reports three cases. The first was that of a boy, 11 years old, with the thin type of the head, mainly optic atrophy with homonymous loss of color perception and enlargement of the sella turcica. Destruction of the adenoma of the pituitary completely removed. The operation was followed by some improvement in vision.

The second case was that of a girl of ten years, who was of the dysplastic type and showed bilateral papilloedema, optic atrophy and almost complete loss of color perception. The basal meninges were subnormal. The avascular light enlargement of the sella and an irregular calcified area above it. At operation a suprasellar calcified tumor was found which extended upward into the third ventricle and pushed downward in the chiasm. The tumor was removed almost completely. The pathological report is adamantinoma. The patient died soon after the operation.

The third case was that of a girl of 15 years, who was of normal type and showed mainly primary optic atrophy without papilloedema. The X-ray revealed enlargement of the sella turcica, destruction of the posterior clinoid and a suprasellar shadow due to

calcification. Operation disclosed a cystic tumor. After a partial removal the tumor was completely removed. The pathological report was adamantinoma of the cranio-pharyngeal duct and a cyst of Rathke's pouch with cholesteatoma. The patient made an excellent recovery with considerable return of vision.

L. F. S. CRAWFORD

Penfield W. Chronic Meningeal (Post Traumatic) Headache and Its Specific Treatment by Lumbar Air Insufflation in Encephalography.
S. G. G. E. Ob. 1971 747

The author reports the cases of seven patients who suffered from headache and dizziness following head injury, received from four weeks to eight years previously. Cessation of these symptoms was first obtained in a case in which lumbar insufflation, as done for diagnostic purposes. The second case presented such a desperate problem that the meninges were undertaken frankly as an experiment. In the other cases it was done because it seemed to be of value on the assumption that it could give relief to the one case in which the vertigo recurred only a small amount of air was used. This patient probably has given no further injection.

In two of the cases consciousness was not lost at the time of the injury, but in the others the period of unconsciousness ranged from two minutes to three hours. In only three cases could a lactur be proved. The technique of the air insufflation and the after care are described.

A review of the literature shows that others have observed the cessation of headache after air injection for encephalography, but in each case the improvement was incidental to diagnostic study. I even cases reported the head trauma, sobriety, the cause of the syndrome and the treatment given at first seemed to be of little avail. Four of these patients spent from two to four weeks in bed following the injury. Some of them showed evidence of atrophy of convolution, others air had identical papilloedema, the subarachnoid space, the subdural space, and in two a definite subarachnoid cyst was seen.

The syndrome is caused by a mechanical mechanism which has to do with abnormality of the cerebral meninges. The abnormality may be a cicatricial alteration in the sulcus of the cerebral pial fluid caused by cysts, thin meningeal adhesions or a complication by some mechanical disturbance. If a cystic adhesion is present, the air bubble may separate the filaments of the meninges formed in this condition.

G. E. C. A. R. M. D.

SPINAL CORD AND ITS COVERINGS

Herrmann L. G. A. B. H. F. e. n. the Spinal Canal. S. G. G. E. 1971 83

Forign bodies free in the spinal canal are rare. The author reviews seven cases from the literature and reports one case of his own. The latter was the case of a laborer who entered the hospital in August

1926 complaining of sharp shooting pains and attacks of numbness in the leg cramp like pains in the abdomen difficulty in walking urinary frequency and impotence. Three years previously he had been shot by a .3 caliber pistol the bullet entering the left hypochondrium near the mid clavicular line. Operation was performed at that time but the bullet was not found. As it was not thought to be in the spinal canal the latter was not explored. The patient remained well until December 1935 when the symptoms mentioned gradually appeared. The possibility of tabes was considered.

Examination revealed absence of the patellar Achilles and plantar reflexes and sluggishness of the abdominal and cremasteric reflexes. Over the posterior portion of the thighs there was slight hyperesthesia but this was not constant. Two tests showed the spinal fluid to be negative. X-ray examination at different times revealed the presence of the bullet first in the region of the first sacral vertebra then in that of the fourth lumbar vertebra and again in that of the first sacral vertebra. At exploration in the region of the first sacral vertebra the bullet was not found and subsequent X-ray examination showed it to be in the region of the third lumbar vertebra where it had migrated probably because of the patient's position on the table. At a second operation during which the patient's head and shoulders were elevated the bullet was easily removed.

The patient made a good recovery and one year after the operation was free from symptoms. Except for sluggishness of the patellar and Achilles reflexes the neurological examination was negative.

Before the dura is opened in such cases it is well to allow sufficient time to elapse for the subsidence of the infection. Roentgenograms should be taken in various positions and fluoroscopic and stereoscopic studies should be made. In the majority of the cases reported more than one operation had been performed because of failure to find the bullet in the expected position. (GILBERT C. ANDERSON, M.D.)

SYMPATHETIC NERVES

Clark, S. L. The Superior Cervical Sympathetic Ganglion in Angina Pectoris. A Microscopic Study. *J. L. B. & C. M. J.* 927, 111, 101.

Clark states that the location of the pathological changes of the chronic form of angina pectoris the

exact source of the pain and the best method of treating the condition are problems still to be solved. He reviews the anatomy and physiology of the sympathetic system from the standpoint of angina pectoris and the theories of various investigators regarding the condition. Little study has been made of the ganglia removed at operation. Clark reports on seven ganglia removed from such cases giving the case histories and the findings as to the size and shape of the nerve cells, the amount of pigment, the state of the Nissl bodies, the relative number of capsule cells, the amount of connective tissue, the condition of the blood vessels, and the presence of leucocytes. Six of the ganglia were superior ganglia and one was a middle cervical ganglion.

Some of the ganglia, chiefly those of older subjects, showed considerable brownish pigment in the cells. This pigment is known to increase with age but it was found also in the ganglion of a ten year old boy who had died of rheumatic fever, a ganglion used as a control. In some instances lymphocytic infiltration was found in small areas of connective tissue. There was no increase in the connective tissue nor any apparent change in the number or size of cells or fibers as compared with the controls. The vessel did not show any evidence of arteriosclerotic change.

In each of the osmic acid preparations there were small clumps of large myelinated fibers resembling sensory fibers from the cardiac plexus through the lower sympathetic connections as traced by Edgeworth Ranson and Shrive. These were larger than the myelinated fibers of the sympathetic nerve trunk. Concerning their origin and course the author only speculates but he presents reason for the belief that they may be sensory fibers from some cerebral spinal nerve. A sensory pathway from the heart through the vagus to the superior cervical sympathetic ganglion and then to the cord by way of the rami communicantes of the upper cervical nerves has been suggested.

This histological study revealed no change in the superior cervical sympathetic ganglion which are specific for angina pectoris but Clark admits that the pathological changes of the condition might be located here though they are not recognizable under the microscope. The relief of the pain following the removal of the ganglion has not as yet been satisfactorily explained.

(GILBERT C. ANDERSON, M.D.)

SURGERY OF THE CHEST

CHEST WALL AND BREAST

McFarland J. Adenofibroma and Fibroadenoma of the Female Breast. *Am J Surg* 1901 9

A critical analysis of 89 benign fibroadenomas of the female breast as made from the clinical and histopathological studies for the purpose of simplifying the nomenclature. These tumors had been classified by numerous pathologists of five first class hospitals under thirteen different names including adenoma, fibroma, myxoma, sarcoma, cystadenoma and with various combinations.

Careful microscopic examination revealed 59 true tumors, 17 non-tumors and 37 indeterminate. The author suggests that the call of non-tumors by the names of tumors may have been merely an attempt on the part of the pathologists to cope with the surgeon.

The true tumor is either papillary or tubular and single or multiple. The periductal fibroma of Waerslev which the fibro-epithelioma is to be derived from periductal tissue. They usually develop during the first half of adult life, the average age of the patient being twenty-eight years.

The non-tumors occur in a rule, the one half of sexual life, the average age of the patients being thirty-seven years. They are simply mammary tissue either normal or in some stage of involution. The author calls attention to the fact that there are anatomical and physiological disturbance of the breast peculiarly related to pregnancy, lactation and the menstrual period which may occasion lump that have no relation to tumors.

In conclusion McFarland states that a system of nomenclature which permits tumor and non-tumor to be given the same name is of little value and should be abandoned.

McFarland M. D.

Hendley W. S. P. A terminal in situ of the Throat in Breast Cancer and Its Suppression by the Use of Radium Tube as an Operative Procedure. *Surg Gynecol* 1901 10

The author believes that in many cases of carcinoma of the breast early in situ of the lymphatic glands lying along the internal mammary artery takes place prior to operation. Therefore in nearly every primary operation on the breast he places a radium tube above the first rib close to the position of the terminal portion of the main lymphatic duct and buries another radium tube in the intercostal muscles at each of the inner end of the first three intercostal

space. He cites cases to demonstrate the importance of the site in resection. Since he has been using this procedure the cases show improvement as regards the influence of recurrence.

Nathan V. C. O. M. D.

Medical Society of London. Late Result of Operation for Carcinoma of the Breast. *Br J Surg* 1901 8

The present is based on 65 cases of carcinoma of the breast which were operated upon in less than ten years ago. All except 3 of the patients were females. The prognosis is about the same in both males and females but a slightly better prognosis for women than for men. In young persons it is not so generally believed.

Of 3 patients upon whom the radical operation as performed by Halsted and Wells is to be verified. Of patients with involvement of the axillary gland at the time of operation 1 was alive and well 3 years later. The other was subjected to excision of a portion of the subcostal cartilage and of the pectoral muscle 7 years after the primary operation and died 1 year after the first operation from pneumonia. In case of excision of the subcutaneous gland, necessary 1 year after the primary operation, but the patient was alive and well 4 years after the primary operation. In all of these cases just cited the diagnosis was macroscopic.

In the case of the diagnosis as made both macroscopically and microscopically. Of 45 cases of carcinoma of the breast the radical operation was performed in 4. This is one of the patients treated by radical operation, relief from recurrence from 10 to 1 year later. In 6 cases the carcinoma of the spheroidal cell type. Of 21 patients with this type of carcinoma who were subjected to dissection, 9 were free from recurrence from 10 to 1 year later. Of 4 patients than when carcinoma had been operated upon radically, all were free from recurrence from 0 to 5 years later. Of 1 patient operated upon radically for cephalo-carcinoma all were free from 0 to 23 years later and of 1 patient operated upon radically for duct carcinoma all were free from recurrence from 0 to 6 years later.

In the radical operation of the operation on the radical removal of the tumor and excision of the breast to removal of the breast, the pectoral major and minor and the axillary gland. Of the 135 patients treated radically, 1 relief from recurrence from 0 to 1 year later.

In early 5 per cent of the total number of cases one or more operations are necessary in addition to the primary operation.

Of the total number of 265 patients 73.6 per cent were alive and well with no signs of recurrence from 10 to 34 years after the primary operation. Of the patients who were alive more than 10 years after the primary operation a recurrence developed in about 17 per cent. C. O. HENRIKSEN, M.D.

TRACHEA, LUNGS AND PLEURA

Moersch H. J. and Boothby W. M. The Value of Oxygen Following Bronchoscopy in Children. *Arch. Otolaryngol.* 1927, 1: 54.

Moersch and Boothby explain on pathological grounds the rationale of the administration of oxygen in the treatment of laryngeal edema and its sequelae. A vicious circle is established by the sequence of narrowing of the laryngeal hiatus increased respiratory effort increased variation between negative and positive pressures in the terminal bronchi edema of the alveolar walls and obstruction to the diffusion of oxygen with aggravation of the dyspnea. If a foreign body and bacteria have been inhaled bronchopneumonia results.

The authors undertook treatment with the oxygen chamber to break the vicious circle by decreasing the cyanosis and diminishing the edema. Their object was to decrease the danger of bronchopneumonia.

They report three cases. In the first case bronchopneumonia was established before the administration of oxygen. The edema subsided rapidly and within four days the pneumonic inflammation was nearly resolved.

In the second case tracheotomy had been done but the presence of tenacious mucus and pulmonary edema would have caused death if the oxygen chamber had not been used. Within twelve hours the patient was breathing easily and the temperature was normal.

In the third case a peanut had been aspirated into the left bronchus. Only by recourse to the oxygen chamber could the serious symptoms be controlled. These recurred within two hours after the patient's exposure to ordinary air and abated on his return to the oxygen chamber. During such an interval the foreign body was removed and a considerable quantity of pus was aspirated from the bronchi. The temperature which had been as high as 105 degrees returned to normal on the following day. The authors believe that the child's life was saved by the use of oxygen.

Morrison I. F. Pulmonary Abscess—Postoperative. *Clin. & Exptl. Med.* 1927, 11: 79.

The author reviews 241 cases of pulmonary abscess in 40 of which the condition followed an operative procedure.

At the San Francisco County Hospital and the University of California Hospital in the period from 1913 to 1917 pulmonary abscess followed tonsillectomy once in 4800 cases. After this operation the symptom begins on the second, third or fourth day

and the abscess ruptures between the fifth and fourteenth days. After other operations the symptoms begin with a septic temperature and often with pain in the chest on the third and fourth day. The abscess is formed much more frequently in the right lung than the left lung.

For the first three months the treatment may be medical expectant and supportive. Bronchoscopy may be found of value. The condition may clear up under medical treatment or run a chronic course. The prognosis as regards complete cure is unfavorable.

Postoperative lung abscess may result from the aspiration of infected material or infection of the lung by way of the blood or lymph stream. The author believes it is more apt to be produced by way of the blood stream after general surgical procedures and by aspiration during tonsillectomy. In 7.5 per cent of 200 cases of tonsillectomy Morrison found blood in the trachea and bronchi on bronchoscopic examination after the operation.

Morrison concludes that the danger of the development of a pulmonary abscess is no greater after tonsillectomy than after other operations. The only abscesses that are preventable are those due to aspiration. Infection of the lung by way of the blood stream is not common. The lymph stream as a route of infection is of minor importance.

C. O. HENRIKSEN, M.D.

Hirsch I. S. The Roentgen Diagnosis of Malignant Neoplasms of the Lung. *Radiology* 1927, 14: 470.

With the advent of accurate methods of diagnosis especially roentgen examination the determination of malignant neoplasms of the lung has been facilitated and the comparative frequency of such lesions has been demonstrated. Since the roentgen appearance is a representation of the gross pathology, a knowledge of the latter is essential for the correct interpretation of roentgenograms. The author describes the gross pathology in detail as regards the type of tumor the mechanical consequences of the growth of the tumor the reactive processes in the surrounding lung and pleura and secondary circulatory and degenerative processes in the tumor tissue. Though a case of lung tumor when first seen may present only one of the pathological changes cited the average case and particularly the case of long standing presents to a greater or less degree nearly every variety of direct or indirect change of tumor formation.

The relative diagnostic value of the clinical bronchoscopic and roentgenological examinations is discussed at some length. Different types of malignant tumors of the lung may resemble each other so closely that it is impossible to differentiate between them. Secondary tumors usually produce multiple definitely circumscribed rounded shadows. Benign tumor cannot always be distinguished from malignant tumors by means of the roentgen appearance alone.

The roe tgen examinat on gves info mation re garding the p nt of rgt the top graphcal dis t but n the siz the lrectio fext sion an l the pre ence f e mplatio flu g tumor The appe ranc pntentl due to the lllow gchange () tum r (2) t n tectel t (3) inflammat on (4) ecro (5) crrh (6) fib inou a le ufa t e pleu itl (7) lenop thy The tumo mav be hlar p rench mal miliary r pleu al The rocntg n pictu e f ach of the e fo ms is lesc bed i l tail The d e t a l n l r ct igns f steno are g e a d the v lue of tral onchial l p o l o l i j tio s d cu el The ch r ges produced by th other c n l t m v t t m completely b cure th prim p o c th hich they a e a sociate

F) the f r p e f d fferential diagno the p l f g o th f the hlar and alve l r tum rs are l idel t th stage () the incipe t (2) tl fl l n l (3) the termi al Th l e ses hich mu t be diff e tiat d from tumo gr ths at a) u stig re cl the f d t e ch c f p o t s of d ffe entiat n a g l The clucal h to v pl v s m t imp rtant p r t n the d ffl rent l diagnosi of malig ant tum r p rticul rly the life ent t n from inflammat v le i s an l ben ng th At tmes a th rapeut c t e n the form f i radation i a imp rta t id A H x \ M D

HEART AND PERICARDIUM

Capp J A Pericardial P in An Exp m n t al and Clinl l Study l l l l l l d 07 l 7

The purpose f the tudy r p o t ed in this a tick s to d termine as f r as poss ble hat tru ture with n a d adjac t to the pe ica dum ar c p r f e of f produci g p in a l hat la s go ern the di tr bution of the prin

The most r liable e lence bear g on the e q e tions i to b obtai ed by d ect irr tati n f th a to s struct es ith n an l ou l the p ic dial sac and th c ful e cord h f p nful en to thereby indu ed th respe t to b th the qu lity and the local ti \ ch ber t i f s can ot b made on nmal a b o h e c pti lly does the ppo tunity pre t it l f i m n

In t v o cases of chro n c t bereulous pe card t s and t v o of heumatic pericarditis— l l vith effu i —Capp s tuded the action cau ed by irritation f the pe ca dum dum gpar centes In each ca e the skin as r etizel vith ethyl clor d a d a troc r r nsertel not f r lat alls f om the lateral border of the pe ca dum

The nt oductio f th tr c r t l ou h the pa etal pleura as l ays ace mpaned by cha ter stic local prin Befo e a secon l th ust through the pe cardium as made time a allo ed f r th p to subside Befo e much of th pe icardial flui l s rem el the pe ar lum v s r tate l by met s f r sil er e h h s intro luced through the c nnula

It is f u n l th t in three instance in hich the p rie rd m as punct ed at the le l of the fourth nte spac pu as o t expe need he eas hen punctures rem d at the le el of the f fth or s i th sp par as felt in th neck This pa Capps attr but t irr t ion f the f i b e s of the ph emic e e hich mav e t n i p r r i o e r the s r face of the f b s p car lum f r a sh r d sta ce The re lts of stat ion of th er p r ca lum o e l i g the h r t s em d t i n i c t e that th i area nse s t i v e t j a

Capp el c l ob at ons m v be summa ized as follo

In four case f subacute a lch o ic p cardit th l r g e f u s u s h a pa r the hea t n l o p r l l t n l n s s

Off f r p u t i th m p l d p card t i th to a d f f c t s ou d t xper ncel l ysp a c e m p l a ng a l o f t i h t f e e l n o v the h c t l l u t the t o the h d n d t r e s f a v k l l

In fou case of f fctive coro thrombos the b g n i n g of a d p ca l t d i l not p o d u c e ne p r o r l t c r th he t

Of f i e a o f p l p ca f t i p in nd ten l e r t p s s e r p e e n t a l l

F m th e p r i m i t l a l c l c i l o b s e r a t o C p p c o l u l e t h a t p i p s e t l y i c i f j l t t h i o l m e t f the pleu a

A N O c M D

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Paterson D. An Investigation into the Incidence of Hernia in Children. *1 Ch D: Child* 927 1138

Paterson states that of the total number of patients entering the dispensary of the Hospital for Sick Children London in a period of 5 years 0.8 per cent had some form of hernia. Seventy-nine per cent of those with hernia were males. Of 773 patients with simple inguinal hernia 90 per cent were males. Of the 364 cases which were operated upon a recurrence developed in 4 (0.7 per cent). Of the 209 cases which were not operated upon the hernia disappeared in 18. Therefore of the 713 cases 24 per cent did not require operation. A spontaneous cure occurred in 3 per cent of the females but only in 22 per cent of the males. The spontaneous cures occurred usually before the first year of age but in some cases there were recurrences at intervals up to the age of three years. In some cases the neck of the sac underwent fibrosis but remained a potential sac. Such a potential sac may later give rise to sudden hernia following exertion.

Of the simple inguinal hernia 62 per cent were on the right side, 30 per cent were on the left side and 18 per cent were bilateral. In females the hernia was found on the right side in 45 per cent and on the left side in 35 per cent.

Eight hernia were designated as strangulated but did not necessitate resection of the bowel. They were all in infants under two years of age.

Of the 214 patients with an umbilical hernia 53 per cent were males. One hundred and one of these hernia disappeared spontaneously, the incidence of such disappearance being about the same in males and females. Both inguinal and umbilical hernia were present in 30 males and 1 female.

The treatment was (1) circumcision if there was any straining, (2) the application of a rubber truss and (3) operation after one year. Forty-six of the umbilical hernia were repaired and 67 were not operated upon. A large number of the latter became much smaller. Since about half of the umbilical hernia closed spontaneously, operation is usually unnecessary for this condition before the twelfth year of age.

JAMES B. BROWN, M.D.

Buchbinder J. R. The Prevention of Peritoneal Adhesions and Encapsulation. The Preliminary Report of an Experimental Study of the Peritoneal Reaction to Hypertonic Dextrose Solution. *Surg Gynec & Obst* 122 4163

According to the voluminous literature on peritonitis no fluid or solid foreign body, however bland or non-irritating or sterile, can be placed in contact

with the peritoneum without producing prompt encapsulation by adjacent loop of bowel or omentum and no method has been developed whereby adhesions between contiguous inflamed loops of bowel and omentum can be prevented.

The experimental work of Yates which was carried out in 1905 and is largely responsible for the present day attitude regarding peritoneal drainage showed that relative encapsulation due to the precipitation of fibrin is immediate and absolute encapsulation occurs in less than six hours. Such bland substances as vaseline, paraffin oil, olive oil, peptonized milk, and egg albumen not only fail to prevent adhesions but excite their formation by the production of a chemical peritonitis.

When a hypertonic solution is brought into contact with the peritoneum it produces a transudate. Experiments performed by Buchbinder with a 20 per cent solution of dextrose showed that when such a transudate is produced in sufficient amounts it limits or entirely prevents the formation of fibrin. Under such conditions Buchbinder was able to keep rubber drains of various types unencapsulated and communicating with the free peritoneum for two and three consecutive days. He attributes the prevention of fibrin formation and subsequent encapsulation to the great dilution of the peritoneal exudate.

In another series of experiments performed by Buchbinder, tincture of iodine was used to produce a chemical peritonitis. The iodine was applied to the peritoneal surface of 10 or 11 in of the small bowel. It uniformly produced massive inflammatory adhesions between almost all of the loops of small bowel and a violent but sterile peritonitis. The inflammatory reaction spread to the omentum which completely enveloped the infiltrated bowel to form a tumor that was readily palpable through the abdominal wall. When a transudate was maintained for twenty-four hours by means of repeated injections of dextrose solution, adhesions between the contiguous inflamed loops failed to occur.

The author calls attention to the fact that the method is associated with the danger of serious dehydration which in some cases may prove fatal. This danger is remote, however, if the maximum safe dose of the 20 per cent solution—one-fifth of the body weight—is not exceeded. Normal saline solution should be administered intravenously.

The peritoneum is only slightly damaged. Histologically a mild serous peritonitis is produced. Glycosuria is of uniform occurrence but fixation of sugar tolerance is not a source of danger and can be controlled by the administration of insulin. In the cases of some of the dogs experimented upon, no harm resulted when the abdomen was filled with fluid and there was a constant glycosuria for a week.

In conclus on the author state that if this experimental work is carried out farther with bacterial peritonitis it may improve the treatment of severe diffuse spreading peritonitis by facilitating drainage for the removal of a vast amount of toxic exudate.

Johnson H L. Observations on the Prevention of Postoperative Peritonitis and Abdominal Adhesions. *Surg Gynecol Obstet* 9: 16.

The author cites Deaver's classification of adhesions. Deaver groups adhesions into the congenital and acquired types and subdivides those of the acquired type into the inflammatory and the operative. He states that inflammatory adhesions may be constructive as well as destructive. Constructive adhesions represent the deposit of fibrin in the peritoneal cavity against peritoneal inflammation. Best of the adhesions are dense unabsorbable bands of organized fibrin. It particularly thickens the structure adhesions that Johnson deals in this article.

Among the causes of abdominal adhesions mentioned by Deaver are collections of blood in the peritoneal cavity, cerebral position and the trauma of sutures, ligatures, trunks and poor operative technique. The early reaction to inflammation is a process characterized by a coagulation containing phagocytes. In addition to this serum effusion, the escape of the peritoneum becomes covered by a fibrin layer which is constructive and protective and in the absence of a severe peritonitis is extensive and usually absorbed.

The author cites McCallum's explanation of the autolysis or digestion of the adhesions by a proteolytic ferment present in the effusion. Opposing this ferment the isofibrinolytic enzyme inhibits the action of the leucoprotease. These ferment are normally present within the leucocytes and a little activity of the latter. Upon disintegration of the leucocytes they become liberated to act on the surrounding tissues. Therefore the proteolytic enzyme preponderant in liquefaction and abscess formation results but the antienzyme is necessary for the liquefaction is checked.

Many substances have been used to aid this action. Recently a Japanese surgeon Kubota succeeded in causing the resolution of artificially produced adhesions by the use of a 0.005 solution of papain, a ferment from the unripe fruit of the papaya tree which is active in neutral and alkaline media.

Johnson has led to neglect the biological prevention of abdominal adhesions as by reports from G. Mary. In a case of an ectopic pregnancy, a patient who was in need of blood transfusion he left all of the blood in the abdominal cavity released by the operation. The abdomen remained flat. The patient made a perfect recovery. It has subsequently followed the same procedure in fifty-three abdominal caesarean sections. In eighteen of these cases he inspected the abdomen at later operations.

Even when definite infection was present the postoperative course was normal and without the formation of adhesions.

In experimental work done to determine the effect of amniotic fluid in the abdomen of the guinea pig following severe trauma to the intestine and peritonitis, a very satisfactory result as regards the prevention of adhesions were obtained.

Johnson discusses the following conclusions:

Amniotic fluid is a logical substance to employ for the prevention of adhesions because of its chemical function in its natural location, the prevention of adhesions between the amniotic sac and the fetus.

This fluid sealed by the Berkefeld filter method is safe to use in the abdominal cavity after operation.

Its action in the peritoneal cavity is the immediate production of protective layers of fibrin on the peritoneal surfaces and a moderate local leukocytosis followed by complete resolution of the fibrous deposit leaving no permanent injury to the serosal surface.

It prevents peritonitis by its quick action in stimulating fibrous and defensive stimulation of moderate local leukocytosis. It prevents adhesions apparently by stimulating the rapid resolution of the plastic exudate through the action of proteolytic ferment which turns it into the local leukocytosis.

Laboratory and clinical observations have proved beyond any reasonable doubt that the presence of this fluid in the abdominal cavity after operation has a distinct beneficial action in the development of peritonitis and the formation of adhesions and it is a definite effect.

H. R. N. O. McPHERSON, M.D.

GASTRO INTESTINAL TRACT

Mutrie F and Po L. P. N. D. L. C. e. of C. t. e. u. U. l. of the St. m. h. u. n. d. e. R. a. d. i. I. g. a. l. C. n. t. o. l. (G. e. m. d. l. s. o. t. o. l. d. i. l. g. q. d. l. e. d. i. t. m.) P. A. d. I. 9. 7. x. 9.

The term craterous (Cruehner) is applied to ulcers which show an X-ray image that partially or completely traverses the muscle and produces a peptic ulcer. The advertisement represents the interior of an excised ulcer which is marked at the stomach by only a narrow anal may be difficult to follow with the X-ray. False projections of the duodenum due to contraction or deformation by the tight peristalsis or spasms vary from day to day and may disappear after the administration of atropine but crater shadows are directly due to an ulcer are practically constant in contour and site. The X-rays confirm the medical case of ulcers. The peptic ulcer type of ulcer occurs almost exclusively on the lesser curvature. Ulcers in the pylorus are rarely present covering shadows in cases of duodenal ulcer complex.

formities are noted more often than typical cavity shadows and the therapeutic progress is difficult to follow roentgenologically.

The authors report twelve cases of cavernous ulcers of the lesser curvature with X ray images ranging from a spur to a swollen ampulla and varying ulcerations which just penetrated the muscle or burrowed to or destroyed the peritoneum so that the base was formed by a sclerolipomatous plaque or in adjacent organ. In seven cases there were spurs or cups and in five true niches of Haudek. Some of the ulcers emptied rapidly. Others filled spontaneously or did not fill according to the relation of the mouth to the folds or were revealed by a suspended spot visible after evacuation of the stomach. A shadow was often seen on the greater curvature in relation to the lesion. The ulcers had produced the classical symptoms and had existed for months or many years.

The treatment consisted in rest, a lactofarinous diet and the administration of a 70 per cent bismuth mixture morning and evening for many months and of from 1 to 1½ mgm of atropine per day. When possible the atropine was given subcutaneously. The authors prescribe kaolin bicarbonate of soda or the Sippey method only to relieve pain. Lactofarinous foods are disinfected by cooking and combat the congestion of the gastritis and the ulcers. The bismuth protects the mucosa from the mucous flow and is bactericidal, antisecretory and antispasmodic (hypovagotomizing).

In the cases reviewed the improvement was usually very rapid. The subjective amelioration closely paralleled the objective changes shown by the X ray. Generally in ten days the X ray image was notably modified, a niche was reduced to an ampulliform projection and a spur was thinned and broken. Soon the cavernous image looked like a little cone which was lifting the wall or like a comma hanging from the wall. Roentgenograms revealed persistent deformities inaccessible to direct examination. Healing was considered complete when all trace of the cavity was gone. A segmentary rigidity of the lesser curvature at the site of the lesion occasionally persisted for a time as indicated by inability to pleat the stomach wall and by non-propagation of waves on the diseased area. The latter relates only to the lower half because peristaltic waves normally fail in the upper third of the lesser curvature.

The ulcer evolution varied with the severity of the lesion and diverse associated factors such as parietal infection, oedema and neurovascular trouble. Healing was completed in from six weeks to three or six months or an average of two months. Feissly has reported rapid results in cavernous ulcers of the lesser curvature obtained with insulin which elevate the blood alkalies. From the standpoint of the direct gastric action the author considers the use of insulin in gastric ulcer illogical as insulin is a most active hypervagotonic and gastric ulcer is accompanied by intense vagus irritation.

Emhorn and Damade have obtained rapid amelioration and cure in deforming duodenogastric ulcers by duodenal feedings. Moutier and Porcher's treatment relieves the ulcers equally quickly and in many cases gives clinical and roentgenological healing in from five to eight weeks. However duodenal feedings are indispensable in cases requiring absolute gastric rest.

The authors note that cavernous ulcers treated medically recover with extreme ease at times and they emphasize the advisability of the prolonged combined use of bismuth and atropine which surpasses all other ulcer treatments and is especially superior to the use of complex alkalies. Only certain ulcers of the lesser curvature resist medical therapy. After simple gastroenterostomy the authors have often noted the regression of the cavernous images with the rapidity and progress obtained by medical therapy alone. Their treatment is most effective in ulcers at a distance from the pylorus. For pyloric or duodenal ulcers surgery is preferable to purely medical therapy. To the argument that a mucus plug or a clot may give deceptive X ray evidence of cicatrization of a cavernous ulcer the authors state that the ulcers in which progressive regression is followed regularly are not ulcers closed accidentally and temporarily, also that the roentgenological and clinical healing are parallel. The ulcer defect occurs in tissues not only sclerous but also very oedematous especially during the inflammatory attack. Hence the subsidence of the interstitial inflammation and the connective tissue proliferation of the base with the swelling of the walls and epithelial growth on the surface quickly reduce the depth of the cavity which then only awaits total effacement and cicatrization.

Ulcer recurrences evolving in long periods are evidenced by giant ulcers. In the case of an elderly patient the authors observed the return of ulcer symptoms with re-appearance of a cavernous image after a clinical cure of eighteen months duration. They believe that in addition to the continuous ulcers with interrupted clinical manifestations new ulcers often form on the cicatrix of a former ulcer or in some other area not yet eroded. They consider that gastric ulcers evolve much more rapidly than was formerly believed. Even craterous ulcers may be old in only a few months and may become cicatrized or perforate in a few weeks.

New gastric symptoms developing many months after the clinical and roentgenological healing of an ulcer may be due to persistent ptosis gastritidis, perigastritis or neuritis.

WALTER C. BERRY, M.D.

Nordmann O. Corrective Surgery Following Unsuccessful Operations for Ulcer (Krankheitsoperationen nach erfolglosem Ulcerperatationen)
Zentr. bl. f. Ch. 1927 11: 1803

Nordmann says that the indications for a new operation in the cases of patients previously operated upon for gastric ulcer depend upon the sever

Repeated vomiting that lasts for days and endangers life may be due to a vicious circle following an improperly done gastro enterostomy. Either the loop of bowel leading to the stomach is too long or there is an acute kink in the bowel at the point of anastomosis.

Vomiting may be due also to infection of the peritoneum at the line of suture or to adhesions of the suture line. Short believes that the presence of adhesions between the anterior and posterior suture line of the mucosa is one of the common causes of persistent vomiting after gastric operations. In this type of vomiting there is no bile in the vomitus as none can enter the stomach. Two cases of this kind are cited.

To prevent the occurrence of adhesions Short inserts a corrugated rubber dam between the anterior and posterior sutured mucosa.

I. EDWARD BISHOP, M.D.

Ginzburg L. and Beller A. J. Non Metallic Perforating Intestinal Foreign Bodies. *Am Surg* 927 1931 98

Perforation by small non metallic foreign bodies such as fish bones, chicken bones or shivers of wood occurs most frequently in the large intestine especially at the flexures and in the cæcum.

The condition is more frequent than it is generally believed to be. Of the twelve proved cases occurring at the Mount Sinai Hospital, New York, within the last ten years, nine were discovered in the last three years. The difficulties in recognition are due to the lack of a leading history, failure to visualize this type of foreign body by the X-ray, and the wide variety of clinical manifestations.

The perforation may manifest itself in various ways. The most common signs and those of most importance to the surgeon are symptoms of acute peritonitis, localized intra abdominal abscesses, intra abdominal usually pericolic inflammatory tumors, tumor of the abdominal wall, abscess of the abdominal wall, and inflammation and obstruction in a hernial sac.

In pericolic tumors which do not invade the intestinal lumen or cause stenosis, the possibility that the mass is a foreign body tumor should be considered. Recognition of this condition will decide the surgical indication and render a hazardous operation unnecessary, since removal of the foreign body and drainage will suffice to effect a cure.

JOHN J. MALONE, M.D.

Puccinelli V. Tumors of the Small Intestine (Tumor dell'intestino tenue). *Arch Ital di Chir* 1937 273

This article is based on twenty three tumors of the small intestine, seven carcinomata, two sarcomata, even tumors of lymphatic tissue which the author classifies as round cell lymphosarcomata, one fibroma, and six tumors of doubtful interpretation, one being found in a case of so called intestinal pneumatosis. The neoplasms were discovered in the

course of 24,000 operations. In the same series about 500 tumors of the stomach and 450 tumors of the colon and rectum were found.

Carcinomata are frequent in the stomach, colon and rectum, but very rare in the small intestine. Sarcomata, though rare as compared with carcinomata, are more frequent in the small intestine than in the rest of the digestive tract.

A clinical diagnosis of the different forms of tumor of the small intestine is impossible. Intestinal neoplasms generally do not cause symptoms until some late complication develops, such as stenosis, occlusion, invagination or perforation. Histological diagnosis of the different forms of carcinomata can be made. There has been a great deal of discussion of the nature of the tumors of lymphatic tissue in the small intestine, but the author classifies such growths as true tumors and calls them lymphosarcomata.

The chief value of this article lies in the detailed histological descriptions of the tumors and the excellent anatomical and histological illustrations.

AUDREY C. MORGAN, M.D.

Key Aberg K. Contribution to the Knowledge of Myomata in the Small Intestine. *Acta Chir Scand* 927 1931 61

A man sixty five years of age had noticed a swelling in his abdomen one month before his admission to the hospital, but he had otherwise been free from symptoms except those due to sluggishness of the bowels.

Examination revealed a smooth and elastic abdominal tumor the size of a child's head which extended from slightly above the umbilicus almost down to the symphysis. The Weber test was found positive in the feces and there was marked secondary anemia.

At laparotomy the tumor was discovered to be so intimately connected with a loop of the small intestine that it was impossible to free it. The intestine was therefore resected. The tumor weighed nearly 1280 gm. and was of a type intermediate between a subserous and a submucous growth, as almost one fourth of it was within the intestinal lumen and about three fourths was outside the intestinal wall. The microscopic picture was that of a cellular fibromyoma which probably had arisen from the innermost layer of the tunica muscularis.

In the available literature the author has found the reports of even similar cases.

Delfez L. Carcinoma of the Small Intestine. Four Personal Cases (Cancer de l'intestin grêle). *Ostrebe et al. Ann. per. n. lles. J. d. cl. t.* 4 S. Belg. de l'ir. 92 9

Carcinoma of the small intestine is rare. Hinz in 1911 collected the records of fifty two cases, eight of which were autopsy reports. He studied the condition thoroughly and concluded that the most frequent site of this tumor are the jejunum and the terminal ileum. The patients are seen by the surgeon because of obstruction symptoms. As

Operation is advisable in well selected cases in which the diverticulum appears to be the cause of symptoms which are severe enough to warrant the risk and other methods of treatment have failed. Diverticula arising from the anterior surface of the duodenum are easily approached but those springing from the posterior surface are often closely related to the pancreas and are difficult to operate upon. The operation of choice is excision involving the sac and gastro enterostomy.

CYRIL J. GLASPEL, M.D.

Wilkie D. P. D. Duodenal Ulcer in the Female *Lancet* 1927 cccviii 1 28

Statistics from the Royal Infirmary of Edinburgh prove that duodenal ulcer is a much more common lesion today than it was twenty years ago.

Duodenal ulcer is much more common than gastric ulcer in both sexes. It occurs at all ages and is not as rare among females as is generally believed.

In 35 per cent of the cases of duodenal ulcer in females the history and symptoms were not classical. Flatulence associated with attacks of epigastric pain not related to eating was common and often suggested cholecystitis. Wilkie terms this clinical picture the cholecystoduodenal syndrome. The absence of the typical hunger pains in the female is best explained by the habit of women engaged in household duties of taking food between meals. The meal with fixed hours for work, has longer fasts and less opportunity to ward off hunger pain.

Occasionally a diagnosis of cholecystitis with stone has been changed to that of duodenal ulcer by means of cholecystography combined with the barium meal test. In this procedure a preliminary X-ray examination of the gall bladder is followed by the intravenous injection of tetraiodophenolphthalein. On the following day a second roentgenogram is made of the gall bladder area. A barium meal is then given and a roentgenogram of the stomach and duodenum is made. A little later a fatty meal is given and two hours later a final roentgenogram is made of the gall bladder. By means of these four films valuable diagnostic aid may be obtained.

In the case of the female the relatively mobile duodenum makes gastroduodenostomy an easy and safe operation and this or gastrojejunostomy is the operation of choice. When there is an associated gastric ulcer excision of the ulcer combined with gastro enterostomy is usually most satisfactory. The appendix was found to be diseased and was removed in approximately one third of the cases. In cases of simple ulcer resection of either the stomach or duodenum or both is not necessary.

CYRIL J. GLASPEL, M.D.

Koch J. A Case of Retroperitoneal Hematoma After Duodenal Resection (1 Fall von retroperitonealem Hämatom nach Duodenektomie) *Arch. f. Klin. u. Chir.* 1927 ccli 82

In the case of a man thirty one years of age the first part of the duodenum and the prepyloric part

of the stomach were resected for a callous crater shaped ulcer between 4 and 5 cm. from the pylorus which had perforated into the pancreas. The patient had had symptoms of duodenal ulcer for four years. The base of the ulcer was not removed being merely cauterized. The rest of the duodenum involved was resected and the stump covered by the pancreas and its capsule. It was necessary to do a Billroth II with a Braun entero anastomosis because the descending part of the duodenum could not be sufficiently mobilized.

Before the operation was finished a retroperitoneal hematoma was noticed but was regarded as of no consequence because it failed to become larger while it was watched. Five hours after the operation the patient suddenly became restless, markedly anemic and pulseless but later his condition improved without operative interference. Five days later he suddenly developed chills, a high fever and pain under the right costal margin where a tumor the size of a fetal head could be palpated. Three days later about a liter of coagulated blood was evacuated from this tumor through the operative incision. Despite drainage for a day a fist sized fluctuating mass then developed in the left inguinal region and the temperature rose to 39 degrees C. Drainage evacuated half a liter of coagulated blood from the retroperitoneal space.

Koch believes that the source of the hemorrhage was a venous plexus in the serosa free posterior wall of the duodenum where tearing readily causes bleeding which is difficult to stop. The brittleness of the blood vessels in chronic inflammations must also be considered as an etiological factor.

BERGMANN (Z)

Schmieden V. and Westhues H. The Clinical Aspects and Pathology of Polyps of the Colon and Their Clinical and Pathologic Anatomical Relationship to Carcinoma of the Colon (Zu Klinik und Pathologie des Dickdarmpolyps und deren klinischen und pathologisch-anatomischen Beziehungen zum Dickdarmcarcinom) *Deutsche Ztschr. f. Chir.* 1927 ccli 1

Polyps of the colon are divided by the authors into three groups according to their histogenesis and malignancy. Those of the third group are characterized as precancerous because they nearly always become true carcinomata and often do so before they have reached the size of a pea. The transition from the typical slender regular polyp cells to a precancerous condition occurs on the whole surface of these polyps. The regular arrangement disappears, the cells become plumper and the nuclei become irregular in position and shape. The findings are of decisive importance in the examination of biopsy material. Not alone the character of these cells but also the whole picture is characteristic of the complex precancerous state.

The authors correlate the various histological findings with the etiology, diagnosis, therapy and prognosis. They call attention to the fact that in diffuse

lymphatic tension is slow there is sufficient time for efficacious treatment

Delreux has not made a statistical study of the condition but reports a total of four personal cases making short comments on each

Case 1. Carcinoma of the epithelial pearls in the ileum. The patient a man of sixty-two years had been treated for an apparently having recovered from peptic ulcer about three years previously. For four months he had been having crises of severe abdominal pain which at times required morphine. There had been moderate loss of eight Phical examination and roentgenoscopic study were negative. The tumor was discovered at laparotomy and the bowel resected. The patient died three months later from an epigastric tumor. No autopsy was made.

Case 2. Stealing cylindrical cell carcinoma of the jejunum. The patient a man of fifty-seven years who had previously been in good health had suffered from abdominal pain and colic for the past three or four months during which time he had lost considerable weight. In the past two weeks he had vomited times. On examination a tumor was felt to the left of the umbilicus and a visible peristalsis was noted. The obstruction of the colon although total. At laparotomy a perforated jejunal ulcer as found the perforation had been closed by the omentum. No glands were discovered. The affected bowel was resected and anastomosis made. The patient is still alive in good health nine months after the operation.

Case 3. Carcinoma of the duodenojejunal flexure. A woman sixty years of age had hadague gastric and epigastric distress for four months. A small epigastric mass as moved with the right side of the epigastrium. Histological examination revealed it to be an adenocarcinoma. The symptoms were not relieved by the operation and ultimately vomiting occurred. On examination two months after the first operation the epigastric mass as found to have recurred. An indefinite resistance as felt in the epigastrium but as shown roentgenology did not affect the stomach or duodenum. Despite the negative x-ray findings a diagnosis of obstructive high up in the small bowel was made and laparotomy was performed. A carcinoma of the duodenojejunal flexure with numerous glandular metastases as found. Duodenojejunostomy afforded the patient relief until her death from ascites and tetanus five and one-half months later. Worthy of special note in this case were the early umbilical metastases the negative roentgen ray evidence and the relief afforded by the anastomosis.

Case 4. Carcinoma of the jejunum. A woman fifty-four years of age had had symptoms of intestinal obstruction for a number of months. There was no tenderness and no constipation. The absence of vomiting indicated that the lesion was below the duodenum or jejunum. An ill-defined tumor was felt occasionally in the epigastrium. A diagnosis of possible stenosis of the ileum was made. The patient

genotyped favored a diagnosis of periduodenal adhesion but could not localize the lesion. An annular stenosis of the jejunum was found about 40 cm below the duodenojejunal flexure. Resection was accomplished and anastomosis made. No glands were found. The phantom tumor was thought to be due to contractions of the hypertrophied intestine proximal to the tumor.

M. H. E. L. M. M. D.

Cyde mai W J D osdenal D I et ul C d
M t J 9 455

Dode live t clare first described in 1710 a list demonstrated by means of the roentgen ray in 1909

The omentum usually found late in life and appears to be common in females than in males. The lividity varies in size from that of a pea to that of a small orange. Over half of them occur in the second portion of the duodenum. Some of the latter may be dilatation of the ampulla.

uter
Duodenal diverticula are false diverticula as they do not contain all of the coats of the bowel. The mucosa is always present but the muscular coat is lacking. They are in fact true herniations of the mucosa through the muscular coat. The theory most generally accepted is that either directly or indirectly congenital and producing symptoms late in life. They are congenital supportively they have been demonstrated in (1) the embryonic children and associated with other organs and (2) the region late where the pancreatic ducts are double but the theory that they support the effects of the enteric muscle all escape by themselves seem to appear late in life they have been found obstruction due to a new been found late in life.

thate
Salle tract on the result from ulcer or frequent in the first part.

The pathologic changes in the diverticula are where in the digestive tract inflammatory changes in the jejunum in duodenal.

Duodenal symptoms are vague and made clinically.

The diagnosis is difficult especially in cases

sided syndrome. Follow up medical therapy should be used if possible. When operation is performed in cases of suspected chronic appendicitis an adequate exposure should be made. The appendix should be removed even if it is apparently healthy as it may contain the slight or chronic lesions which some surgeons (among them Okunczyk) consider to be the initial factor in the right sided syndrome. Any distinct adherent bands—especially bands from the lower end of the small intestine and the right colic angle a Lane kink or a Jackson membrane—should be freed.

If only a thin dilated atonic cæcocolon is found fixation and plicature should be avoided. In such early cases without organic parietal lesions but with ptosis and distinct dilatation of all of the right large intestine from faulty attachment slight barium retardation and intermittent painful crises of cæcal distention only the Duval (regoire) operation is justifiable. Fixation usually gives merely temporary relief and is followed by new adhesions which may produce further symptoms. It is not physiologically correct to plicate or to fix an organ such as the cæcocolon which must contract constantly and freely. The X ray reveals that after plicatures and fixations the right large intestine has irregular dentate borders and is deformed and immobile. If chronic appendicitis is associated with cæcal stasis of more than thirty hours typhlocolitis and secondary tight dense pericolic adhesions if the patient has already been operated upon unsuccessfully and if medical treatment has proved either insufficient or impossible a right colectomy should be done before the development of more or less intense parietal lesions of ulcerous or perforating typhlocolitis.

Operation is contra indicated when the patient is psychopathic neurasthenic or old or is suffering from general ptosis of which the syndrome of the right iliac fossa is a part. Total colectomy is a serious operation and is justified only in the presence of total megacolon with total stasis—a rare lesion—which is manifestly organic and not functional. For general and functional stasis and constipation total colectomy has neither clinical nor experimental justification.

WALTER C BURKET M.D.

Coyner J R and Caorsi L J Tuberculosis of the Retrocæcal Glands. Tuberculous Periapendicitis (Tubercle 1 de l'engorgement rétro-cæcal pépendicé tuberculeux) *Am Soc Med* 1927 11 29.

Primary tuberculo is of the mesocolic and mesenteric glands is not frequent. The authors describe a case in a man of fifty years. About thirty years before the patient was admitted to the hospital he began to have pain in the spine. This was followed by scoliosis which slowly increased. About two weeks before his admission he began to have dull pain in the abdomen which finally became localized in the right iliac fossa. He stated that he had not suffered from nausea or vomiting and thought he had had only slight fever. At the time of his ad-

mission to the hospital the pain was intense and continuous.

Examination showed scoliosis with the concavity to the left. No pain was felt on percussion of the spinous processes or on active or passive movement. There was pulsation in the veins of the neck and the cervical glands were slightly enlarged. No signs of pulmonary tuberculosis were found. There was diffuse pain in the right iliac fossa without muscle rigidity. Palpation revealed a long tumor parallel with Poupart's ligament and extending from four fingers breadth below the costal arch to two fingers breadth above the middle of Poupart's ligament. This tumor was hard and irregular and painful on pressure. It did not move with respiration or a change of position and could be moved only slightly. When the colon and cæcum were distended it disappeared and could be demonstrated only by deep palpation. Roentgen examination showed that it was back of and below the colon. A diagnosis of retrocæcal tuberculous adenitis was made.

Operation revealed fixation of the cæcum in the right iliac fossa and induration of its posterior wall. The cæcum was exteriorized and the appendix amputated near its base. In the indurated portion of the posterior wall of the cæcum there were caseous fragments. The caseous tissue was removed and the rest of the appendix resected. A drainage tube was then introduced. Uneventful recovery ensued.

In chronic appendicitis there may be acute attacks resembling this patient's illness. Tuberculous retrocæcal lymphadenitis is often confused with appendicitis and sometimes a diagnosis before operation is impossible. In the case reported the authors made the diagnosis from the periodicity of the pain with attacks which receded spontaneously, the examination of the blood which showed anaemia and no hyperleucocytosis, the hard only slightly movable and slightly painful tumor and the findings of specific tests including the Huttel-Bard test which showed tuberculosis. Nevertheless even with such evidence only a probable diagnosis can be made.

WIDNEY C MORGAN M.D.

Trotter W The Symptomatology and Diagnosis of Chronic Appendicitis *Brit M J* 1927 11 563.

Dowden J W Diagnostic Difficulties in Chronic Appendicitis *Brit M J* 1927 11 566.

Bonney V Gynecological Considerations in Chronic Appendicitis *Brit M J* 1927 11 566.

Walton A J The Etiology and Sequels of Chronic Appendicitis *Brit M J* 1927 11 63.

TROTTER The diagnosis of chronic appendicitis is aided by local signs such as right iliac pain tenderness increased resistance and increased tension of the right rectus muscle. A definite difference in the tension of the two recti is probably the most trustworthy sign. Considerable reliance is to be placed on a sudden momentary sharp stabbing pain in the appendix region. This often occurs while the patient is walking. In patients who have given this needle pain complaint the appendix at

sided syndrome. Follow up medical therapy should be used if possible. When operation is performed in cases of suspected chronic appendicitis an adequate exposure should be made. The appendix should be removed even if it is apparently healthy as it may contain the slight or chronic lesions which some surgeons (among them Okynczye) consider to be the initial factor in the right sided syndrome. Any distinct adherent bands—especially bands from the lower end of the small intestine and the right colic angle—a Lane kink or a Jackson membrane—should be freed.

If only a thin dilated atonic cæcocolon is found fixation and plicature should be avoided. In such early cases without organic parietal lesions but with ptosis and distinct dilatation of all of the right large intestine from faulty attachment slight barium retardation and intermittent painful crises of caecal distention only the Duval Gregoire operation is justifiable. Fixation usually gives merely temporary relief and is followed by new adhesions which may produce further symptoms. It is not physiologically correct to plicate or to fix an organ such as the cæcocolon which must contract constantly and freely. The X ray reveals that after plicatures and fixations the right large intestine has irregular dentate borders and is deformed and immobile. If chronic appendicitis is associated with cæcal stasis of more than thirty hours typhlocolitis and secondary tight dense pericolic adhesions if the patient has already been operated upon unsuccessfully and if medical treatment has proved either insufficient or impossible a right colectomy should be done before the development of more or less intense parietal lesions of ulcerous or perforating typhlocolitis.

Operation is contra indicated when the patient is psychopathic neurasthenic or old or is suffering from general ptosis of which the syndrome of the right iliac fossa is a part. Total colectomy is a serious operation and is justified only in the presence of total megacolon with total stasis—a rare lesion—which is manifestly organic and not functional. For general and functional stasis and constipation total colectomy has neither clinical nor experimental justification.

WALTER C BURKET M D

Goyena J R and Gorsi L J. Tuberculosis of the Retrocecal Glands. Tuberculous Perio-
appendicitis (Tul reul is le los ganglios retro-
cecale pernae dicitis tuberculosa). *Ket Soc de*
med terna y Soc de ls l 1927 iii 229.

Primary tuberculosis of the mesocolic and mesenteric glands is not frequent. The authors describe a case in a man of fifty years. About thirty years before the patient was admitted to the hospital he began to have pain in the spine. This was followed by scoliosis which slowly increased. About two weeks before his admission he began to have dull pain in the abdomen which finally became localized in the right iliac fossa. He stated that he had not suffered from nausea or vomiting and thought he had had only slight fever. At the time of his ad-

mission to the hospital the pain was intense and continuous.

Examination showed scoliosis with the concavity to the left. No pain was felt on percussion of the spinous processes or on active or passive movement. There was pulsation in the veins of the neck and the cervical glands were slightly enlarged. No signs of pulmonary tuberculosis were found. There was diffuse pain in the right iliac fossa without muscle rigidity. Palpation revealed a long tumor parallel with Poupart's ligament and extending from four fingers breadth below the costal arch to two fingers breadth above the middle of Poupart's ligament. This tumor was hard and irregular and painful on pressure. It did not move with respiration or a change of position and could be moved only slightly. When the colon and cæcum were distended it disappeared and could be demonstrated only by deep palpation. Roentgen examination showed that it was back of and below the colon. A diagnosis of retrocecal tuberculous adenitis was made.

Operation revealed fixation of the cæcum in the right iliac fossa and induration of its posterior wall. The cæcum was exteriorized and the appendix amputated near its base. In the indurated portion of the posterior wall of the cæcum there were caseous fragments. The caseous tissue was removed and the rest of the appendix resected. A drainage tube was then introduced. Uneventful recovery ensued.

In chronic appendicitis there may be acute attacks resembling this patient's illness. Tuberculous retrocecal lymphadenitis is often confused with appendicitis and sometimes a diagnosis before operation is impossible. In the case reported the authors made the diagnosis from the periodicity of the pain with attacks which receded spontaneously, the examination of the blood which showed anemia and no hyperleucocytosis, the hard only slightly movable and slightly painful tumor and the findings of specific tests including the Hutinel-Bard test which showed tuberculosis. Nevertheless even with such evidence only a probable diagnosis can be made.

ALFRED G. MORFAN M D

Trotter W. The Symptomatology and Diagnosis of Chronic Appendicitis. *Brit M J* 1927 i 1063.

Dowden J W. Diagnostic Difficulties in Chronic Appendicitis. *Brit M J* 1927 ii 1066.

Bonney A. Gynecological Considerations in Chronic Appendicitis. *Brit M J* 1927 ii 1066.

Walton A J. The Etiology and Sequels of Chronic Appendicitis. *Brit M J* 1927 ii 1068.

TROTTER. The diagnosis of chronic appendicitis is aided by local signs such as right iliac pain tenderness increased resistance and increased tension of the right rectus muscle. A definite difference in the tension of the two recti is probably the most trustworthy sign. Considerable reliance is to be placed on a sudden momentary sharp stabbing pain in the appendix region. This often occurs while the patient is walking. In patients who have given this needle pain complaint the appendix at

operation is found to have undergone definite pathological changes

General abdominal symptoms of chronic appendicitis are flatulent dyspepsia and irregular motility and secretion of the colon. In childhood there may be in addition recurrent attacks of vomiting or diarrhoea with bloody attacks and tolerance of certain foods and fever.

The more common complications of chronic appendicitis are chronic cholecystitis, peptic ulceration and secondary infection of the adnexa.

DOWNEN In children and the young a chronic appendicular lesion should always be suspected when there is a history of listlessness, anorexia, appetite colicky pains, perhaps nausea or vomiting. The cyclic vomiting of acidosis must be differentiated.

BONNEY Appendicular pain may be attributed to the pelvic organs and conversely pain originating in the pelvic organs may be diagnosed as arising from the appendix. The latter fact is often a common mistake.

Chronic albuginous or bloody (menometrial) cysts and adhesion to the right ovarian ligament as a retroperitoneal uterus commonly cause pain similar to chronic appendicitis.

It is most important in all cases of suspected chronic appendicitis to determine the position of the uterus and the parts adjacent to it in order to exclude the possibility that the pain is due to ligamentous drag. It should be remembered that parietal ligamentous drag is always marked by accentuated tenderness only when the patient is up and about. Recumbency causes it to disappear or to become much less marked. To estimate uterine or adnexal displacement properly the patient should be examined in the standing position.

WALTON Chronic appendicitis is not a primary disease; it occurs only after an acute attack.

I 738 Laparotomies for pathological conditions in the upper abdomen which a large series made for abdominal exploration and appendectomy showed in only 73 (approximately 4 per cent). The appendix should be fully examined in every case but removed only if there is definite evidence of disease. If it is infected, flamed, matted, thickened, tender or contains masses, operations appendectomy and cauterization but mild fibrosis or the presence of membranes filamentous bands or sufficient evidence of disease to warrant this procedure.

CIRLES F. DU BOIS, M.D.

Carnett J. B. Chronic Pseudo-Appendicitis Due to Intercostal Neuralgia. *J. H. S.* 97 1 579

Appendectomy fails to relieve the symptoms of chronic appendicitis in from 10 to 20 per cent of the cases. The symptoms may frequently be relieved by a right iliac parietal tenderness.

Stanton J. describes cases of failure into two groups: (1) those of young women complaining of

right iliac pain which is usually associated with constipation and (2) those in which appendectomy was done unsuccessfully for the relief of vague abdominal symptoms. Operation in the first group usually reveals a normal appendix and an enlarged mobile caecum.

Lichty advises against making a diagnosis of chronic appendicitis in the absence of a history of characteristic acute attacks. He believes that poor results from operation for chronic appendicitis represent not operative failure but a diagnostic mistake.

Ca net emphasizes that the decision as to whether or not the patient had chronic appendicitis cannot be based upon the pathologist's study of the removed appendix. The microscopic test must be replaced by the clinical test of whether or not the symptoms for which the patient sought relief were cured by the appendectomy. If relief was not obtained the condition was a pseudo-appendicitis not a true chronic appendicitis.

In Carlett's opinion chronic appendicitis is almost never generally regarded as either non-existent or it is not claimed to be by many pathologists or as an almost universal affection due largely to a preceding attack of acute appendicitis but more commonly the result of denervation changes which are incident to increasing age and develop too gradually to cause clinical symptoms. Pain and tenderness in the right lower quadrant of the abdomen have been attributed to numerous other causes besides appendicitis but no cause common to all cases has been discovered.

From a careful study of these cases **Carnett** has come to the conclusion that the majority of the symptoms of chronic appendicitis have been simulated by pain and tenderness in the anterior abdominal wall. To differentiate between tenderness in the abdominal wall and tenderness within the abdomen it is necessary to palpate while the patient holds his anterior abdominal muscles as tense as possible. Tense abdominal muscles keep the fingers from pressing the viscera. The usual procedure of palpating with the muscles relaxed is a possible clinical tenderness only when the fingers press rather deeply into the abdomen thus leading to the conclusion that any tenderness noted in the abdomen is not the appendix. The author emphasizes that the utility of the test described in all cases of abdominal tenderness demonstrates that tenderness occurs in the abdominal wall more frequently than within the abdomen.

Tenderness noted when the abdominal muscles are relaxed may be of either parietal or intra-abdominal origin. Tenderness which is present when the muscles are relaxed is absent when the muscles are tensed is due to an intra-abdominal cause. Tender cases which present both when the muscles are relaxed and when they are relaxed is of parietal origin. The degree of tenderness is variable.

While the preliminary examination fails to show evidence of an intra-abdominal lesion, further pal-

pation should be more vigorous and areas of mild parietal tenderness should be subjected to poking with the finger at a right angle to the surface. This poking often reveals a parietal tenderness which would otherwise escape notice. Tension of the abdominal muscles may be maintained by having the supine patient raise his heels from the supporting surface with his knees extended.

Chronic pain and tenderness of the anterior abdominal wall are due most commonly to intercostal or costolumbar neuralgia. The entire nerve supply of the anterior abdominal wall is derived from the lower seven intercostal and the first lumbar nerves, and the suggested terminology is meant to include all lesions of the spinal cord, meninges, vertebrae and nerve trunks which can give rise to pain and tenderness in the area supplied by these nerves. Because of the variability in the extent of the involvement, many conditions may be closely simulated.

The presence of nerve involvement is proved by the demonstration of tenderness by pinching of the abdominal skin and fat pressure on intercostal nerve trunks and pressure over areas supplied by intercostal nerve fibers away from the abdomen.

A triangular area in the right lower quadrant bounded by the midline, a transverse line from the umbilicus to the crest of the ilium, and a line parallel with Poupart's ligament is found to have a fairly uniform degree of tenderness both when the muscles are relaxed and when they are tense. In addition, tender points are to be found along the outer border of the rectus muscle at the points of exit of the intercostal nerve fibers supplying the rectus muscle. In the interpretation of tenderness of the abdomen, these tender points must be borne in mind.

The author disagrees with the view of Mackenzie, Head, and others that skin hyperæsthesia is due to a visceroparietal sensory reflex and is therefore indicative of underlying intra-abdominal disease.

Even when the hyperæsthesia is evidenced by the pinch test is confined to the right lower quadrant of the abdomen, it is very common to find tenderness of the intercostal nerve trunks extending as high as the sixth or the fifth or even up to and including the first. Palpation for such nerve trunk tenderness is conducted by placing the finger tip in an intercostal space along the anterior or anterolateral wall of the chest and while making pressure upward against the lower edge of the rib, carrying the finger back and forth in the interspace.

Hypersensitiveness of the terminal branches of the first and second intercostal nerves which are distributed by way of the intercostohumeral nerve to the upper posterior part of the arm, can be demonstrated by pinching the skin, fat, and muscle in the region of the posterior axillary fold.

When the twelfth intercostal and first lumbar nerves are affected, there are two other areas outside the limits of the abdomen which are often found to be hypersensitive. One is an area about 1 in. wide in the upper anterior thigh, parallel with

Poupart's ligament which is supplied by some of the terminal fibers of the ilioinguinal branch of the first lumbar nerve. The other is a V shaped area in the buttock below the iliac crest, which is supplied by the iliac branches of the twelfth dorsal, the iliohypogastric and the ilioinguinal nerves. The demonstration of tenderness in the latter area is a most valuable aid in demonstrating that tenderness at McBurney's point is parietal rather than intra-abdominal. This area may be compared with a circular area above the trochanter which is very rarely hypersensitive.

Many cases of parietal neuralgia do not present the complete picture described by Carnett. Skin tenderness to the pinch test or nerve trunk tenderness or both may be absent even when muscular tenderness is quite marked. The most constant sign of the condition is the tenderness revealed by the poking finger over muscles voluntarily made rigid.

Chronic strain of the lumbar spine and sacroiliac joints due to lumbar lordosis causes tenderness of the vertebral bodies and disks and of the sacroiliac joint. As this tenderness is elicited by deep pressure in the region of McBurney's point and the corresponding area of the other side, it is frequently interpreted as indicating chronic appendicitis.

Visceroptotic persons who constitute the majority of those suffering from chronic pseudoappendicitis can usually be classified as having one of the following conditions: (1) digestive disturbances due to ptosis and intestinal stasis; (2) deep tenderness at or near McBurney's point due to chronic strain of the lumbar spine and sacroiliac joints; or (3) intercostal neuralgia of the anterior abdominal wall due to lumbar lordosis and possibly to intestinal toxæmia. Patients with these conditions are not relieved by operation and the great majority may be subsequently shown to have the diagnostic signs of intercostal neuralgia. Operation is often followed by improvement but ultimately the symptoms recur.

In a careful review of cases and of the literature the author was unable to find a syndrome which in his opinion warranted the diagnosis of chronic appendicitis and could be relieved by operation. He draws the following conclusions:

1. Chronic appendicitis as ordinarily seen under the microscope does not cause clinical symptoms.

2. The clinical symptoms that have been ascribed to chronic appendicitis are not caused by the appendix and are not cured by appendectomy.

3. Patient with chronic pain and tenderness in the right side present somewhat diverse clinical pictures that are uniformly consistent with intercostal neuralgia but are not consistent with any other single affection. I. S. PLATT, M.D.

Cutler, C. W., Jr. Postoperative Complications of Suppurative Appendicitis. *Am. J. S. S.* 1917, 1: 602.

This article is based on 392 cases of suppurative appendicitis and includes only cases of empyema or gangrene of the appendix perforation or marked

open operation. The technique requires a preliminary colostomy with exploration of the abdominal cavity for secondary growths and biopsy from ten to fourteen days before the irradiation.

The rectum was freely exposed by incisions from behind. Needles each containing from 15 to 3 mgm of radium element were then inserted at equal distances from each other throughout the lesions with care not to puncture the mucosa. The three sets of hemorrhoidal vessels were also irradiated. Packs with flanne and paraffin gauze were placed over the needle and catheters were inserted into the wound for Carrel Dakin treatment.

The irradiation was continued for from seven to fourteen days and the dosage varied from .268 to 9.840 mgm/hr. The relative value of the use of a small amount of radium over a long period of time and of a large amount of radium over a long period of time with equal milligram hourage is discussed at length but no definite conclusion is reached.

In the cases reviewed 50 mgm for 60 hours a total of 10,000 mgm/hr was the maximum dosage. The screening variations in the technique complications infections and the authors' general impressions are discussed at length.

In selecting cases for radium treatment the author excludes those with metastases in the liver or peritoneum and those with growths above the peritoneal reflection. The most suitable cases are those with lesions low down and posterior.

The method is associated with some risk but this is not necessarily serious. Rectal carcinoma can be destroyed with radium but lymphatic spread is difficult to check. The results justify an attempt at cure. The author urges co-operation between the various specialists in dealing with this problem. The results in the fifteen cases reviewed are tabulated.

Eight of the patients were benefited. In two no growth can now be detected. Of the two whose condition was operable one developed a recurrence fifteen months after the operation and died. The other is apparently cured.

In the discussion of this report LOCKHART MUMFERY stated that he inserts radium by means of a special trocar passed through stab wounds in the skin. He uses large doses for a short period. He has had no trouble from sepsis.

HANDLEY stated that in his opinion operation will ultimately be abandoned. He advised irradiation as high up as the sacral promontory. He believes that the method described is superior to irradiation from the lumen of the bowel as it does not prevent the use of his encirclement method and is free from the danger of a reduced or stimulating dose to distant parts.

DONALDSON stated that in his opinion radiotherapy offers much better prospects than surgery and that when the laws governing the differences in action of radium on malignant and non-malignant cells are discovered a tremendous advance will be made in the treatment of cancer.

A JAMES LARKIN M.D.

LIVER GALL BLADDER PANCREAS AND SPLEEN

McQueen J M Direct Observation of the Circulation in the Living Liver *Brit J Med* 197 11 37

In studies of the circulation in the living liver McQueen used quarter sized or half sized toads that had been pithed. A lobe of the liver was placed on a glass slide and examined under the low power.

The liver cells and the flow of blood through the capillaries were clearly seen. The investigation showed the presence of a pulse in the capillaries and some of the branches of the hepatic veins. This pulsation was synchronous with the auricular contraction and was produced by retardation of the flow from the liver to the auricle.

These findings confirm the description of MacKenzie in his treatise on the heart.

I EDWARD B. LOW M.D.

Leone P Sympathectomy of the Hepatic Artery and Its Effect on Wound Healing and on the Biligene and Glycogenic Function of the Liver (La simpatetia e dell'arteria epatica in rapporto alla produzione delle funzioni biligene e glicogeniche del fegato) *Arch Ital Biol* 927 31 346

Two series of experiments on dogs are described. In the first the author studied the effect of sympathectomy of the hepatic artery on the repair of simple linear and wedge shaped wounds of the liver. The operation had no perceptible effect on the healing of the wounds.

In the second series of experiments he studied the effect of sympathectomy of the hepatic artery on the biligene and glycogenic functions of the liver. A disturbance of these functions was noted during the first week after the sympathectomy but within ten days had entirely subsided. The author therefore concludes that the transitory decrease in function was caused by irritation of the visceral sympathetic by the operation.

AUDREY C. MORGAN M.D.

Buchbinder W C and Kern R Experimental Obstructive Jaundice. I The Growth Factor in Defective Calcification *J Clin Invest* 1927 31 900

In experiments which were carried out over a period of twelve months on five litters of puppies the authors found that when obstructive jaundice was produced in these animals a fairly uniformly progressive calcium deficiency occurred in the blood serum during the period of growth. They attribute this deficiency to the deposition of lime salts into an increased matrix rather than to progressive failure of calcium absorption. Roentgenograms taken twenty days after the induction of jaundice showed no significant changes in the bones but the enamel after sixty days disclosed marked rarefaction.

The four chief factors responsible for faulty calcification are (1) small storage of calcium (2) a

Fulde reviews fifty two operations for carcinoma of Vater's papilla—fifty one reported in the literature and one of his own. Forty seven operations were done in one stage and five in two stages. The mortality of the one stage operations was 42.5 per cent. Transduodenal extirpation was done in forty two cases, retroduodenal extirpation in two cases, extirpation from the common duct by extroversion of the papilla in one case and resection of the middle portion of the duodenum in two cases.

In the two stage operations the first stage was the formation of a gall bladder fistula in two cases, drainage of the common duct in one case and cholecystenterostomy in two cases. In the second stage transduodenal extirpation was performed three times and resection of the duodenum twice.

There are records of eight radical resections for carcinoma of the common duct, eleven for carcinoma at the juncture of the cystic and common ducts, two for carcinoma of the cystic duct and one for carcinoma of the hepatic duct. The operative mortality in this group was 35 per cent.

The author reports the case of a man forty six years of age who had been jaundiced for five months. At operation a tumor the size of half a cherry was found on Vater's papilla. After mobilization and transverse incision of the duodenum transduodenal extirpation was done. Microscopic examination showed the neoplasm to be an adenocarcinoma extending from the common duct. The cure has lasted for two years. LEIBNSCHER (Z)

Pieri G. The Transverse Incision in Operations on the Bile Tract (L'incision transversale dans les opérations sur les voies biliaires). *J de chir* 1927 xxx 260

In Pieri's operation on the liver or bile ducts or for exploration of the upper part of the abdomen the patient is placed on his back with a sand bag under the lower part of the thorax to produce an exaggerated lordosis. Then a transverse incision is made beginning at the end of the right tenth rib, crossing the midline two fingers breadth above the umbilicus and extending about a finger's breadth farther to the left. In fat subjects the incision may be extended farther and in women with a prolapsed liver it may be made a finger's breadth lower. After section of the subcutaneous tissue andaponurosis a double row of sutures is placed in the rectus to prevent bleeding and retraction and the incision is made between them. The sutures occupy only the inner two thirds of the incision as it is not necessary to extend them to the oblique and transverse muscles. After the peritoneum is incised it is surprisingly easy to bring the lower border of the liver out at the incision. When a drain is necessary it is brought out at the outer angle of the wound.

The advantages of this incision are that it spares the muscles and nerves of the region more than any other type of incision; it gives a better view of the field of operation; it is parallel with the lower border of the liver while other incisions give an access which

is perpendicular or oblique to the region to be operated upon; it permits lateral drainage which is much better than the vertical drainage from the other incisions; the reconstruction of the abdominal wall is very solid and as the drain comes out high and near the costal arch it reduces the possibility of postoperative hernia to the minimum. If a hernia occurs it is easily cured because the direction of action of the abdominal muscles is transverse and therefore much greater solidity is obtained by a transverse reparative suture than by a longitudinal suture.

AUDREY G. MORGAN M.D.

Sprengel H. Clinical and Anatomicohistological Research on Healed Necrosis of the Faty Tissue of the Pancreas (Klinische und anatomisch histologische Untersuchungen an ausgeheilten Pankreasfisteln). *Beitr klin Chir* 1927 cxi 17

At the present time little is known concerning the histological results in the healing of acute pancreatitis. In 1901 Koerte reported a case in which eight years after operation the head of the pancreas was found to be of normal size whereas the body and tail were replaced by thick scar tissue.

The author reports the case of a woman fifty six years of age who was operated upon on August 13, 1914 for acute pancreatitis. The operative procedure included incision of the capsule of the gland, tamponade and drainage of the bursa omentalis, emptying of the gall bladder which contained stones and cholecystostomy. On May 5, 1925 a secondary cholecystectomy with drainage of the choledochus was performed. The pancreas was then found to be grayish white and of normal size. In January, 1926 the patient was reexamined and found to be in perfect health. On February 16, 1926 she was admitted to the hospital in a moribund condition due to strangulation ileus caused by a band of cicatricial tissue extending between the cæcum and the lower part of the small intestine. Soon after her admission she died.

The autopsy specimen of the pancreas entirely embedded in scar tissue appeared grayish white and showed a distinct lobulation. In length breadth and thickness it appeared somewhat reduced. Microscopic examination of sections from the head, body and tail showed normal pancreatic tissue with a great number of islands of Langerhans, some of which were very large. The interstitial portion consisted of loose connective tissue without inflammatory thickening. Only in the middle portion was there an area changed by disease. In this area the intralobular connective tissue was proliferating, sprinklings of small cells were found, the ducts presented decided atrophy and the islands of Langerhans were very large and well preserved.

This case proves that pancreatic tissue has great resistance and is capable of considerable regeneration. The latter is true particularly of the islands of Langerhans which undergo what may be called a functional hypertrophy. BUDGE (Z)

GYNECOLOGY

UTERUS

Odentl i W Dangers of Ute osalp ng g aj hy
(U b Gef he d Ut o S lp gr pl) Z
i lbl f Gy k 9 7 l 8 4

It has been observed in the Gynecolo cal Clin c at Bonn that ute osalp gog aphy hich has proved its importance in gynecology may be followed by certain unfavo able sequela. In this clinic it did not cause death as in the cases rep rted by Hellmuth f om the Wue bu g Clinic but there were cha ges which n one case presented at laparotomy the picture of a fo eign body granuloma such as is occa onally observed after p affin injections. Peculiar giant cells a d necrot c foci were found not only i the lumen of the tube but also on its surface and on the ovary. In the same regions there we e smooth walled cavities of various si es containing fat globules. Whe the cont ast material remained in the lumen of the tube and did not escape into the abdominal ca ity because of occlusion of the ah dominal end of the tube d turbances resulted. D turbances ha e occu red with e ery k nd of con tra t material used.

Sinc the changes desc bed occurred in spite of the most careful asep and obser ance of contra indications the author vurns g n t exte ding the indicat on of the uterosalpi gography. He bel ees the procedure should be employed only in uncomplicated ases of sterility. In the e t may ad in eluc dat n a number of phys ological problems.

Diagnostic e ors are frequent in the cases of women v th a spast c diathesis and a labile sym pa thetic nervous system who react trngly to psych c and psychosexual stimuli and in the cases of women with displacement of the uterus and an abnormal course of the tubes. In such ca es the roentgen pictu e often fail to sho the outl ne of the tubes alth ugh insufflation yields a pos tive result.

For the di e geit re ults of examinats both mechanical and chem c l nfluences may be respon sible. The latte may include the male sperm

Op H L (C)

Fronticell E Te ti v Sypl ll of the Uterus
and Adnexa (S bl d t) Cl t 6 t
d ll t o d gl) Cl t t 9 7 58

T o cases of te t rv syphilis of the ute u a d one case of te t a v syphilis l the adne a e e reported. The autho states that syphilis of the ute us and adn xa mo e freque t than is gene lly be lie ed. In syph ltic met t s the most impo t nt sym pt ms are haemorrhage wh ch increases in se r ity and pa n w thout in olveme t of the ad e a or pe met t s. H tolog cal v m nation re eals the typ cal p ctu e of periarter tis mes teritis and infil

tration of the parenchyma hy round fusiform and typ cal plasma cells.

The author s first case was one of periarte tis and his second one of obliterati g mcsarter ti. If the dsease is not treated the nfiltrating connective tis sue will undergo hyali e and fibrous degeneration and cause sclerosis of the uterus.

In all of the case reported the Wasserman reac tion was pos tive. The differential d agnosis of the condition s made po sible by the Wassermann test and a decrease in the symptoms under specific treat ment.

AUD BY G MORGAN MD

Gul T T sts of the Virulence of St ept cocci
in the T eatment f Cance f the Uterus (L
p o d ll ul d ll trpt c ella r
d lc d ll te) R i d g 9 7
383

Even when a faultless technique used Wert he m s ahdom nal op cation for cancer of the uterus is still associated with a high mortality. Some of the deaths are due to infection by streptococci. Ruge de used a method of testing the virulence of the st eptococci. He tries to rep duce in vi o the st uggle bet een the hacte a and the defensiv forces of the body. He takes streptococci directly from the focus of a fection on (the ulcerated c ater of a ca cinoma the uterus after ab rt on etc) and so s them in defibr nated blood of the pat e t stained by puncture of a ve. When the streptococci de velop rapidly i the bl od of the pat ent they a e virulent and the prognos is is unfavo able but hen they mult ply slowly—only aft r four hours—o not at all they are not irulent.

Philipp modified this method omewh t to over come its subject e icatures. He inoculates on Pet dsh f ag r ith half of the mi ture of de fibrated blo d and bacter a nd iter it has bee kept in the mostat for f ur hou s h nocul te another dsh ith the othe half. The c e ways de elopment f colonic n the fi t dish but th development n the second dish depend upon th v ulence of the streptococci.

The author report fo rteen cases i hich h te ted the Ruge Phil pp method. Although th number is too small to permit deh te conclusio he bel eves that n cases of cinoma of the cerv wh ch are cl nically operable the p ognosis afte rad cal ah minal operation ill be good f the Rug Phil pp test is neg ti e but if the st eptococci a virulent the postoperat ve course v ll probably t compl cated by infection e en when the cli cal co dit ons seem to be fa oable.

The presence of irul nt strept coc i does n necessarily mean clinical noperabl ty but of cou in case with deep diffus on of the ca cer the strept

cocci will have a better opportunity to increase in virulence. The author believes that if the test were generally applied and all cases with virulent streptococci were excluded from operation or given preliminary treatment to eliminate the virulent bacteria or decrease their virulence the mortality from Wertheim's operation would be greatly reduced.

AUDREY G. MORGAN, M.D.

Pomeroy L. A. Five Year End Results of Radium Treatment in Carcinoma of the Cervix Uteri
Am J Roentgenol 1927 xviii 514

In the earlier cases of carcinoma of the uterine cervix reviewed by Pomeroy the treatment consisted in the intra uterine application of screened radium element and the insertion of steel needles containing radium element directly into the tissues of the cervix. The dosage was usually about 3,000 mgm hr. In the technique now used the entire length of the canal is irradiated with a dosage of about 2,700 mgm hr and in addition glass or gold seeds are implanted in the cervical mass. As a rule twelve 1 mc glass seeds are implanted. The combined dosage therefore ranges from 4,000 to 6,000 mgm and mc hr. Such treatment is not repeated for several months if at all.

Of twenty nine patients with microscopically proved carcinoma of the cervix who were treated with radium five (17 per cent) are apparently well after five years. The twenty nine cases included all classes from early to advanced. More than half of the cancers which were arrested by the treatment were adenocarcinoma.

In the discussion of this report HEALY stated that he uses two capsules, one in the cervix and one just above the internal os. He has rarely observed carcinoma of the cervix extending above the internal os. He applies applicators across the cervix and at the base of the broad ligament on either side giving a fairly large dose. Since 1921 he has used the roentgen rays for external crossfiring. He also makes interstitial applications of gold seeds containing radium. The patients rarely receive less than 6,000 mc hr. The cervical canal receives 3,000 mc hr and the seeds increase the dosage from 500 to 2,500 mc hr. Many patients receive 7,500 mc hr within forty eight hours. Six weeks later routine high voltage roentgen ray treatment is given over the pelvis. Healy has found that the histological study of the cell type yields no information of value in the treatment of these cases. The most important factor governing the prognosis is the extent of the local disease. Of the patients with early carcinoma who were treated five years ago 60 per cent are living and well. Of those whose condition was in the borderline stage 56 per cent are well and of those whose condition was advanced 9 per cent are well. Of the patients who were treated for recurrence 16 per cent are now in good condition. All of these patients were treated with radium only.

WARN reviewed 32 cases 14 of which were operable. Fifty per cent of the patients are well

after 5 years. Of those who were treated for recurrence 14 are well. Of those with a borderline condition 10 per cent are well. Of the 141 with inoperable and advanced cancer 5 per cent are well. The technique of treatment consisted in the introduction of one or two tubes of radon in the cervical canal and the application of a plaque against the cervix to crossfire the growth. The uterine cavity was not irradiated. The dose was between 2,500 and 3,000 mgm hr. This was repeated at the end of six weeks if there was still evidence of the disease. Ward believes that in the determination of the dosage the clinical classification of the case is of more importance than the microscopical classification.

SCHMITZ stated that the histological classification is one of prognosis and not one of treatment.

In closing the discussion POMEROY stated that irradiation of the entire uterine canal lessens the chance of contraction of the cervix with retention of pus in the uterus. He makes only one biopsy.

He has found that a large cauliflower mass is much more amenable to treatment than a small destructive eroding lesion. A. JAMES I. ARKIN, M.D.

ADNEXAL AND PERIUTERINE CONDITIONS

Ruhli I. C. Rhythmic Contractions and Peristaltic Movement in the Intact Human Fallopian Tube as Determined by Peruterine Gas Insufflation and the Kymograph *Am J Obst & Gynec* 1927 vi 557

Contractions in the human fallopian tube can be studied by means of uterotubal gas insufflation and the kymograph. In streaming through the tubes at a constant pressure rate flow the gas acts as an elastic body upon which tubal contractions register varying degrees of pressure. As a comparison with the phenomenon in the surviving specimen without gas insufflation has shown the character of the contractions is but little affected by the gentle inflow of the gas. A rapid flow may cause a certain amount of irritation and is therefore to be avoided. Rhythmic waves recorded upon the kymograph and manometric fluctuations indicate objectively the presence of tubal contractions. These are absent when the tubes have been ablated or are closed or strictured at any point between the intramural portion and the fimbria. They are totally absent in the dead human uterus and tubes.

In the absence of tubal patency and tubal contractions the kymographic record describes an upward slanting line and when the highest pressure point is reached it describes a horizontal line which drops when the cannula is withdrawn from the uterus.

The evidence so far adduced indicates that certain conditions influence the character and occurrence of peristaltic movement. In the presence of spasm an initial high pressure is followed by a drop in pressure which is succeeded by the appearance of regular rhythmic contraction waves on the kymograph.

Narcosis definitely reduces the rate and amplitude. In the presence of cervical regurgitation and the absence of fluctuations bearing down efforts on the part of the patient will establish the diagnosis. If the pressure rises as a result of these straining efforts it indicates that the tubes are patent but their peristaltic motion is impaired. In doubtful cases this has proved a valuable aid.

Since tubal contractions depend upon ovarian activity their character changes with the different phase of the menstrual cycle. They are definitely affected by such conditions as grave functional amenorrhea in young women and the preclimacteric state. In these conditions the kymograph curves if present at all are shallow and less frequent. However in many cases of sterility associated with amenorrhea manometric fluctuation are noted during tubal inflation and sometimes are well marked resembling the behavior of normal tube.

Although no parallel investigation of the presence and content in the blood of a female sex hormone has been carried out in these cases the results obtained point to retention of tubal peristalsis without sufficient hormone present in the same case to activate the uterus to the full degree of menstruation.

E. L. C. NELL, M.D.

Fase, J. R. The Ovary in Osteomalacia. *Am. J. Obst. & G.*, 97: 21, 1937.

Osteomalacia has long been regarded as a disturbance of metabolism peculiar to female and usually occurring in pregnancy or at least brought to its fullest development by pregnancy. The lime salt is absorbed from the bones—first and most noticeably from those of the pelvis and later from other bones. The result is curvature and deformity of the pelvis and other bony structures. Fractures occur readily and at the same time genetically correlated inflammatory degenerative processes develop in the nerves and muscles. These latter are important factors in the clinical picture of osteomalacia.

That the same has decided on an hyperplasia plays a prominent part in the condition is indicated by the following observations:

The prompt cessation and permanent cure of many cases after castration.

The occurrence of aggravated osteomalacic state during pregnancy and menstruation.

The failure of other endocrine therapy.

The high degree of fertility in osteomalacia.

The occurrence in the ovary of structures which must be associated with specific ovarian functions.

The intense vascular changes in the ovary—congestion with the development of almost a telangiectatic condition.

The presence during pregnancy of almost mature graafian follicle with a well marked corpus luteum.

The occurrence of interstitial gland formation in pregnancy at puberty and at other times when

ovarian hyperfunction is to be expected and the occurrence under normal conditions of pregnancy of certain bone changes slightly resembling those of osteomalacia.

All of these observations seem to indicate that osteomalacia is closely related to ovarian hyperactivity and that this excessive ovarian function becomes in some way diverted along pathological lines.

HARVEY B. MATTHEWS, M.D.

Dallera, N. A Cyst of the Ovary Diagnosed as a Fibromyoma of the Uterus. (*Come u st d l l a p o n d e l l a d g o d i f r o m o m a d e l l e*) *Cl. st.* 97: 567.

The patient whose case is reported was a woman forty-three years of age who had been married for eighteen years but had had no children. Shortly before she was seen by Dallera her menstruation had become menorrhagic and since then she had leucorrhea before the menstrual period. She complained also of bladder symptoms and of a tumor in the abdomen which had slowly increased in size and caused a feeling of weight.

Examination revealed a large tumor in a median position in the subumbilical region. The coelom was hard but not of uniform consistency, the upper part being softer than the lower portion. Its surface was irregular. On vaginal examination the cervix was found to be continuous with the lower pole of the tumor and only slightly movable. The entire mass moved with the cervix. A diagnosis of fibromyoma of the uterus was made. The slight mobility of the tumor and the severe bladder symptom suggested that the neoplasm was interligamentous and the variation in its consistency and the discharge suggested that it was beginning to undergo degeneration.

At operation the tumor was found to be a cyst of the ovary with firm and diffuse adhesions to the intestine and the floor of the pelvis. The adhesions indicated that inflammation had been present but no history of inflammation could be obtained. Fixation of the cyst had been prevented by the thickness of its walls. The median position of the cyst and its apparent connection with the uterus were due to its adhesions; its partially interligamentous development and its incarceration in the pelvis. The typical signs of cyst of the ovary had been masked by the old inflammation. AUDREY G. MORGAN, M.D.

EXTERNAL GENITALIA

Puccioni, L. Histological Changes in the Vagina in the Different Phases of the Functional Cycle of the Ovary. (*M d e c z o t o l g i c h d l l a g d l l d p t o l e f d l l f n n l d l l a*) *R. f. d. g.* 197: 1, 544.

Puccioni describes the histological appearance of the vaginal mucous membrane at different periods of the menstrual cycle. In ten instances the examination was made in the week preceding the beginning

of menstruation in three during menstruation in five from twelve to sixteen days after menstruation had stopped and in two after the beginning of the menopause

In the intermenstrual period there is a first stage in which the epithelium of the vaginal mucous membrane is beginning its regeneration at the points where complete desquamation took place. In the second stage regeneration is complete and the epithelium is made up of a basal layer of cylindrical cells surmounted by one or two rows of cubical cells and a number of rows of pavement cells the last of which is almost completely cornified

The premenstrual period may also be divided into two stages. The first is characterized by active proliferation of cells chiefly those of the basal layer of epithelium which causes a uniform elevation of the epithelial surface. There are many interpapillary prolongations which extend deep into the tunica propria and many papillae with dilated capillaries which penetrate the epithelium. In the second stage the proliferation of epithelium stops and degeneration of the individual cells most marked in the superficial layers begins accompanied by desquamation of the horny layer. The connective tissue of the tunica propria is loose and infiltrated with young cells there is intense hyperæmia

The menstrual period is characterized by progressive desquamation of the newly formed epithelium a decrease in the papillary invaginations and an intense hyperæmia accompanied by many small hæmorrhages in the tunica propria. The connective tissue remains loose and infiltrated

In the menopause the vaginal mucous membrane looks very much like that of the resting intermenstrual period

The changes described are synchronous with those in the uterine mucous membrane. The changes were of the same nature in all of the cases but much more intense in some than in others. The most constant ones both qualitatively and quantitatively are those of the premenstrual period and the least constant those of the menstrual period

AUDREY G. MORGAN, M.D.

Furniss H. D. Uterovaginal and Vesicovaginal Fistulæ Combined. *J. S. G.* 1927, 11: 405

While uterovaginal and vesicovaginal fistulæ are fairly frequent the combination of the two is rare. The author records two cases in which such

fistulæ followed hysterectomy for fibroids and were cured by operation by a new technique

There are three principal causes for this operative complication (1) direct operative incision of the ureter and the bladder (2) necrosis of the ureter and the bladder as a result of clamping or suturing and (3) necrosis from interference with the blood supply

The type of treatment of the condition depends upon the presence of infection of the ureter and kidney pelvis the loss of function and the possibility of bringing the ureter into the bladder wall. When the ureter cannot be brought into the bladder wall nephrectomy is the operation of choice. If function is good and there is no infection a ureterovesical anastomosis should be performed and the vesicovaginal fistula closed later. The technique is as follows

Exposure is made through a one sided Pfannenstiel incision which starts at the anterior superior spine of the ilium and 1 in. to its inner side and passes downward in a curved direction to the mid line 1 in. above the symphysis. The fibers of the external oblique are divided in the same direction as are also those of the internal oblique. The transversalis is divided with a sharp knife. Care is taken not to open the peritoneum. The latter is peeled away from the lateral and posterior pelvic wall. The ureter found on the peritoneal reflection is grasped with Allis clamps so that the teeth come together around it. The fistulous portion of the ureter is exposed. When a suitable portion of the ureter is found for anastomosis it is double clamped and cut.

A portion of the bladder wall nearest the ureter is grasped by two Allis clamps and a forceps is pushed through the walls so that it enters anteriorly and emerges posteriorly. The portion of the ureter held in the forceps is then transferred to the forceps that has passed through the bladder and the ureter is drawn into and again out of the bladder. The ureter is then stitched to the posterior bladder wall where it is drawn into the bladder. The forceps on the end of the ureter is then removed and the free end of the ureter is allowed to fall into the bladder cavity. The opening in the anterior bladder wall is then closed.

The wound is drained for seventy-two hours. A Pezzer retention catheter is placed in the bladder for seven or eight days being removed daily for cleansing.

Two cases which were successfully operated upon in this manner are reported. HARRY W. LINK, M.D.

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

No dio A S me Case of Perforation of th Uterus
(L l) R l l d g o 333

No l r p ts s cases of pe foration of the ute us n hi h the l s n as produced by surgical i strume t such as abortion fo c ps uter ne s unis cur ttes d lato etc Operation as neces sarv in all Total hvt e tomv a pe fo med in t o c se th death; both supravag nal hysterectomy th ee ca es with t o de ths and one re co ery and a con e ative operat on in one ase w th death

The autho divides perforations of the uterus into two groups w th efe ence to treatment—those in ute i that are not pregnant or puerperal nd those in peg ant or pue peral ute i In the first g oup the t eatme t may co sist in () trictly co se vat ve measu e uch as re t the application of ce the dnu tation f opium etc or () a conser ati e peration fo s tur of th pe foration or (3) a more r l ss radical pe at n de ening upon the site of the perf at on th n ture f the inst ument by hich t as made and the amount of hamor h ge

I t the ec nd g up the operati n should be total hvt e t m The danger of i fectio in these case i ve y g at In Nord o op n mple utu e of the p r l at n i permi sible only when the gve col g th made the p r l ration h ms If in the ho pit l i k no th t it s done under condi ti of st ict a c ps s the e ha been no p evou att mpt t b r t o outside the hospital and there is no ju v t n ghbor ng organ I art al hysterec t m is nle ted only n cases in v hch total hvt ect mv i contra i dated on account of the patie ts po g ne al co dit o or o ld be dfficult bec use lobe t o co se v tion of the stump of the cer ad able on account of injury t neighb ng organs A G M C N M D

If owitz E A and Kuttner T T The Blood B i l u b i n i n E c t o p i P e g n a n c y 1 m J O b t & G i 9 a 7

F om a t d s of fifteen c r s s of ectop i pregnancy the utho co clude th t ectop i pregn ncy cannot be d ag sed by determ at on of the b i l u b n c n cent at n f the per pheral b l d The main points b ought o t in this art cle may be summarized as follo

In the hamorrhagic e tra sations of cert n cas of ectop c r g n a c there s prob bly a loc l format n f b i l u b n f om hem glob n

It ha n t been d te m d how qu ckly this b i l u b i n is fo med or absorbed

3 The normal l ver promptly removes any e cess of b i l u b i n from the circulating blood by excreti g it into the biliary passages

4 In cases of ruptured ectopic pregnancy icterus may be simulated because of the anæmia

5 Hyperb i l u b i n e m a i not infrequent in the absence of biliary hepat c and hemolytic d sease

6 The content of b i l u b i n in the blood is the same in ectopic pregnancy as in othe gynecological cond tions

HAR EV B MATTHEWS M D

B e e n d e m p f e l P l e c k E Repeated Extra Ute Inc f e g n a n c y o n t h L e f t S i d e (W i e d h e l l k t g E t t e r g i d t e t) Z i l b f G y k 9 7 1 5

The author reports a case in which fifteen mo ths after simple ligation and extirpation of the left fallopian tube fo ruptu ed ext a uterine pregnancy a second laparotomy became necessary because of re cur ence of the typ cal sig s of extra uteri e pregn ncy At the second interventio the ad eta on the right s d e ne e again found inta t b t on the p sterior wall of the uteru at the upper p le of the left o ary v hich was adherent at th t point there v as a bluish nodule the si e of a v alnut co ist g i firm onne t v e t sue i d an intact ovum envel ped by a cho on c membrane Th s was either an o o ian o an abdominal p e g n a n c y Apparently the stump of the left tube had gradu lly become sufficiently patent to llo the pas age of sper matozoa A o (G)

Mas ofblatt R Repeat d P g n a e y i n t h e Sam Tube Two New Cas (U b w d e h l i G d t t d l b T b Z e n F e l l) i f b i t g c S d 9 7

The author e ports t o new cases of repeated tubal pr g n a n c y on the same s d e In o e o ly th middle th d of th tube was emo ed at the f i t ope ation After another pregnancy v hich was ter min ted by spontaneous del v e r t h e p t e t was ope ated up n for tubal pr g n a n c y d e e l o p i n g i n the remai n g late al p r t i o of the resected tube At the second operatio the entire tube was remo ed

In the other c se the patient was operated upon f r tubal rupture An incomplete salp g ectomy was done s m in the first cas a medial stump of the tube 3 cm long be ng left Two and a half years later ne tubal p e g n a n c y developed in the tubal stump and an ope tion wa pe fo med f r complete re moval of the tube

Such recurrences of tub l pregnancy on the same sid a e v e r r a e The auth r has been able to f i d only nineteen cases rep rted in the lite ature In two the c ndition was fou d at autopsy I se en teen operat on w s performed The recu rence of

tubal pregnancy three times occurred in only two cases

The possibility of the recurrence of pregnancy in the same tube is due to faulty operative technique and disturbances of healing. In the author's opinion it is essential always to perform a complete salpingectomy with wedge excision at the uterine cornu and to cover the wound carefully with peritoneum.

Hasselblatt reviews also twenty three cases which are reported in the literature as repeated tubal pregnancy but cannot be accepted as proved cases because the data are unsatisfactory or insufficient.

He believes that the diagnosis of repeated pregnancy in the same tube is justified only when both pregnancies have been proved by operation or the findings at operation in the later pregnancy or at autopsy definitely indicate that there has been a previous pregnancy in the tube.

Kunze H. The Pathology of the Umbilical Cord (Zur Pathologie der Nabelschnur) *Zentralbl f Gynäk* 1927 11 1832

In 828 births twisting of the cord around the fetus occurred in 156 (18.8 per cent). Intrapartum death of the fetus in 2 cases and asphyxia of various degrees in 19 cases were ascribable to this complication. The author reports 1 case in which a fetal part was surrounded by the cord 4 times and cases in which it was surrounded 5 times. Injury to the child occurred in only 1 of these cases and was slight. In the cases in which death of the fetus resulted the umbilical cord was poor in Wharton's jelly. It was less than 1 cm in diameter.

The length of the umbilical cord was found to be 68 cm when it was twisted around the fetus once, 79 cm when it surrounded the fetus 2 and 3 times, 102 cm when it surrounded the fetus 4 times and 96 and 104 cm when it surrounded the fetus 5 times.

The author reports also 1 case (among the 828 births) of circumscribed torsion of the umbilical cord. After a fall on her side the patient noticed that the fetal movements became gradually weaker and finally ceased entirely. On her entrance to the clinic one month before the calculated time for delivery no fetal heart sounds could be heard. A dead macerated child was delivered spontaneously. The umbilical cord which was 69 cm long showed four circumscribed areas of torsion. One—1.5 cm from the umbilicus of the fetus—was 0.4 cm in width. The others were respectively 0.5 and 0.7 cm wide. The umbilical cord made forty-one spirals and was not adherent. Between its placental attachment and the site of torsion nearest that point the cord was from 1.5 to 4 cm in diameter. The placenta was white and bloodless.

Autopsy on the fetus disclosed no cause for the death. Spirochetes could not be found. At the points of torsion examination revealed absence of Wharton's jelly and marked compression of the vessels without complete occlusion. The portion between the placenta and the first area of torsion showed an edematous swelling of Wharton's

jelly and dilatation of the vessels. Blood was found only in the intervillous marginal portions of the placenta. Elsewhere the vessels were empty.

The white portions of the placenta proved to be compressed chorionic villi with bloodless capillaries.

The decision as to whether the torsion of the cord occurred before or after the death of the fetus may be difficult if there are no definite evidences of the time of onset. In the case reported the torsion occurred when the fetus was alive and caused its death. Examination revealed edema of the umbilical cord on the placental side of the torsion such as that described by Abfeld and dilatation of the placental veins in this segment such as that described by Kuestner.

CONRAD (G)

Corwin J. and Herrick W. W. The Toxæmias of Pregnancy in Relation to Chronic Cardiovascular and Renal Disease. *Am J Obst & Gynec* 1927 11 783

To determine the effects of the toxæmias of pregnancy on the kidney and the cardiovascular system the authors studied 91 cases at the Sloane Hospital for Women, New York.

The toxæmias were classified as follows:

- 1 Eclamptic or acute convulsive toxæmia
- 2 Nephritic toxæmia with prolonged and marked albuminuria or non protein nitrogen of 400 mgm per cent or more
- 3 Hypertensive cardiovascular toxæmia—hypertension without convulsions and without nitrogen retention or marked and prolonged albuminuria

The cases were studied before during and after pregnancy over periods ranging from six weeks to six years. Tabulated observations showed that cardiac hypertrophy, thickening of the brachial and radial arteries and certain eye ground changes were present in a large proportion during the toxæmia and also during the follow up period. Such changes suggest that some disorder of the kidneys or cardiovascular system antedated the pregnancy. The authors believe that a large proportion of these women had an underlying disease which was brought to light or aggravated by the pregnancy. The majority of them were large overweight women with heavy muscles, thick skin, large features, hands of a broad square pattern, masculine lines and spaced incisor teeth.

Hypertension persisting for months or years was found in one third of the cases of eclampsia, one half of those of nephritic toxæmia and two fifths of those of hypertensive toxæmia. One half of the nephritic group showed marked albuminuria in the follow up period and one third of the eclamptics had some albuminuria. PHILIP H. ARNOT, M.D.

Benda R. The Present Status of Our Knowledge Regarding the Toxæmias of Pregnancy (Der heutige Stand der Lehre von den Schwangerschafts-toxikosen) *Med Klin* 1927 22 11 710

During pregnancy as well as during general bacterial infections the organism has defensive substances

Premature delivery carries with it a certain fetal mortality which ranges according to various statistics from 25 (Fabre) to 5 per cent (Gammeltoft). The maternal mortality (the morbidity could not be ascertained) ranges from 0.7 to 1.6 per cent.

Cæsarean section on the other hand carries with it an infant mortality approaching zero, the death of the child being rare. The maternal mortality is difficult to evaluate since it depends to some extent upon the occurrence of contamination and sepsis previous to the operation. In the author's opinion the mortality in uncontaminated cases ranges from 1 to 2 per cent, approaching that of premature delivery. Odagesco has estimated that of women who previous to a trial of labor are thought to present a disproportion between the fetus and pelvis which will necessitate cæsarean section, 70 per cent will be able to deliver themselves spontaneously. We are therefore justified in assuming that the mortality of section is no higher than that of premature delivery.

In contaminated cases the mortality of cæsarean section is high (10 per cent) but the growing preference for low section and the improvement in obstetrics (hospitalization, pelvimetry and careful study of cases) should diminish the incidence of infection. The chances of rupture of the uterus along the line of the scar are ten times less following low section than following the classical section.

For cases of pelvic disproportion the author recommends a trial of labor first and if this fails a low cæsarean section. In cases in which premature delivery has been practiced in former deliveries and the woman refuses to submit to section, he consents to premature delivery.

When dystocia is due to an excessively large baby, premature delivery appears to be justified when the patient is a multipara who has persistently borne large babies. In the cases of primiparae in which it is difficult to judge the size of the child, Brouha favors a trial of labor followed by cæsarean section if necessary.

MICHAEL L. MASON, M.D.

Sprecher: The Induction of Abortion in Syphilis
(La procazione dell'aborto nella sifilitica?) *Clin. Obstet.* 197, XXIX, 453.

The author states that there is probably no syphilologist who has not been importuned at one time or another to induce abortion in the case of a pregnant syphilitic woman. This request is made because of the belief that the child will be an idiot or bear other stigmata of congenital lues, that the disease in the mother will be made worse by the gestation, and that during pregnancy the disease is not amenable to treatment.

Sprecher states that the induction of abortion in such cases is not warranted. Syphilis tends in itself to cause abortion and if it does not do so, the infection is probably a light one and if proper treatment is given the child may be born without any syphilitic manifestations. Moreover, an induced abortion may have more serious effects on the woman than continuation of the pregnancy to term. With mod-

ern methods lues can be treated during pregnancy as well as at any other time.

MICHAEL L. MASON, M.D.

LABOR AND ITS COMPLICATIONS

Davis, C. H.: The Evaluation of Methods in Obstetrical Analgesia and Anæsthesia with Special Reference to Gas Oxygen. *Am. J. Obst. & Gynec.* 197, XIV, 806.

Severe pain is not essential to childbirth. The obstetrician should give his patient the maximum relief obtainable without sacrificing her safety or that of the infant.

When the pains are distressing, the author administers $\frac{1}{32}$ gr. of heroin or $\frac{1}{3}$ gr. of pantopon and $\frac{1}{100}$ gr. of hyoscine. Half of this dose is given in the early stages of labor with moderate pain and short contractions, and the rest is administered as it is needed. A severe labor occasionally requires an inhalation anæsthetic or the colonic instillation of ether oil quinine. When the labor is prolonged on account of a rigid cervix or an abnormal position of the fetal head, additional hypodermics are often necessary.— $\frac{1}{24}$ gr. of heroin and $\frac{1}{200}$ gr. of hyoscine. Hypodermics should be avoided during the last two hours of labor as the combination of an opiate with hyoscine may interfere with the respiratory efforts of the child at birth.

Inhalation anæsthetics may be administered intermittently for long periods of time. In several instances the author has administered nitrous oxide oxygen intermittently over a period of fifteen hours.

Late in the first stage or early in the second stage of labor, intermittent analgesia is begun with nitrous oxide oxygen or ethylene oxygen. Ethylene is more inclined to slow up labor but has been used by Davis almost exclusively for two years.

Nitrous oxide oxygen may be used for all operative deliveries except version and cæsarean section. The relaxation necessary for version can be obtained with ether or ethylene oxygen. For cæsarean section nitrous oxide must be supplemented with ether or local anæsthesia or ethylene can be used alone.

An advantage of ethylene over nitrous oxide is that the former induces anæsthesia when administered in a mixture containing a higher percentage of oxygen.

When pulmonary, renal or cardiac complications prevent inhalation anæsthesia, satisfactory results may be obtained by caudal anæsthesia or sacral nerve block.

PHILIP H. ARNOT, M.D.

Zarate, H.: Partial Symphysiotomy As Compared with Cæsarean Section in Contracted Pelvis. Twenty Cases of Partial Symphysiotomy (Symphysiotomie partielle contre césarienne segmentaire en cas de bassin limite: 20 cas de symphysiotomie partielle). *Bull. Soc. d'obst. et de gynéc. de Par.* 1927, XXI, 436.

Zarate states that partial symphysiotomy is absolutely harmless to the mother and associated with

Wenzler E. Total Gangrene of the Uterus During the Puerperium (Totale Gangraen des Uterus im Wochenbett) *Arch f Gynaek* 1927 cxxx 5 1

Wenzler describes a very rare clinical condition which usually develops after a prolonged labor terminated by a severe operative procedure. An interval in which the patient's condition appears to be favorable is followed by a high intermittent fever lasting for weeks, acceleration of the pulse, a copious dark brown foul smelling discharge and oedema of the vulva and perineum. The uterus is found high in the abdomen and very sensitive to pressure, and the general condition becomes very poor. After from fourteen to twenty days, possibly even later, a foul smelling necrotic piece of the uterus of variable size separates spontaneously. The temperature may then fall and a quick recovery result. The local healing takes place with atrophy and atresia of the uterus and sometimes also of the vagina. Death occurs in about 30 per cent of the cases from septicæmia or perforation peritonitis.

A case seen by the author was that of a twenty two year old primipara with premature rupture of the membranes, a generally narrow pelvis, a purulent discharge, pointed condylomata, weak labor pains, a temperature of 38.5 degrees C. and a large child in occipital presentation. An incision was made in the cervix and delivery effected with the forceps. The child was dead from hemorrhage of the brain. During the puerperium there were evidences of an infection of the internal genitalia and the pelvic peritoneum, and on the seventeenth day signs of general peritonitis developed. Laparotomy revealed total gangrene of the uterus, which lay entirely free in its serosal covering. The patient died three days later.

GARNSELE (G)

MISCELLANEOUS

Kosmak G W. The Result of Supervised Midwife Practice in Certain European Countries. Can We Draw a Lesson from This for the United States? *J Am M Ass* 1927 lxxxv 209

In a survey of the midwife system in obstetrical practice in certain European countries, Kosmak was impressed by the high standards required of mid-

wives. In Sweden and Norway, the education and supervision of midwives has been in vogue for more than 200 years and has always been actively sponsored by leaders of the European medical profession. The results of this midwife training are excellent: the maternal mortality and morbidity in these countries being low. In the period from 1900 to 1918 the average puerperal death rate in Norway was 2.95 per 1,000 births and 85 per cent of the deliveries were done by midwives.

In the United States the maternal mortality rates are very high as compared with those of European countries. The greatest number of deaths are due to puerperal septicæmia and operative deliveries. In United States hospitals, operative procedures are used in from 10 to 30 per cent of obstetrical cases, whereas in the Scandinavian countries they are used in an average of 4 per cent.

Kosmak suggests that the Obstetrical Section of the American Medical Association, through its membership in the Joint Committee on Maternal Welfare, inaugurate and participate in a careful inquiry as to the cause of the high mortality rate. He suggests also the development of community interest in better obstetrical care, improvement in the teaching of obstetrics to students, especially the clinical side, and readily available postgraduate instruction of physicians. Such measures, he believes, will result in a desire for better care of pregnant women on the part of the laity and a corresponding increase in the dignity of the obstetrical attendant. He states that it is for members of the medical profession to decide whether a midwife system shall be a part of the obstetrical scheme in the United States. Many states are ignorant of the number as well as the qualifications of midwives working within their boundaries. When this negligence is compared with the carefully supervised system in Scandinavian countries, the necessity for reform becomes at once evident.

If midwife attendance is objectionable, the medical profession must find a substitute for it or continue to have unjustified mortality rates in childbearing, which are not in accord with the achievements in other fields of American medical practice.

ABRAHAM A. BRAUER, M.D.

GENITO-URINARY SURGERY

ADRENAL KIDNEY AND URETER

Lee Brown R K and Laddley J W S *Pyelonephrosis Backflow J 4 11 1 97 1 11 94*

This article is an attempt to correlate the work on pyelonephrosis backflow that has been done up to the present time. A short summary of the literature is presented together with some original observations made by the authors.

The first part of the article gives a brief position of the evidence produced by different investigators either in favor of or against the occurrence of pyelonephrosis backflow and contains tables showing the authors' findings in twenty-five specimens.

In the second part of the article the authors attempt to explain the mechanism by which the phenomenon is produced assuming that its occurrence has been proved beyond reasonable doubt.

JOE G. CREETHAN M.D.

Belcher G W *Renal Distortion Its Relation to Nephralgia J 1 11 1 97 1 11 66*

While distortion of the kidney usually does not cause pain in some cases nephralgia results from the encroachment of neighboring viscera or from some operative causation on a distended arteriosclerosis.

When the position of the kidney is such that the patient complains can be produced by distortion of the pelvis of the kidney on the same side and the pyelogram shows distortion of that kidney whereas the pyelogram of the other kidney is normal the cause of the pain is probably intrarenal. However if the kidney has been previously nephrotomy or nephropexy this fact must be considered in the interpretation of the pyelograms.

If other diseases or disturbing conditions are associated with renal distortion they should be treated before surgical operation. Under take for the relief of the pain. The patient should be kept under observation for a considerable period and all other measures such as the use of abdominal supports should be tried first.

If an operation is performed decapsulation and section of the nerve of the renal plexus should be done if the function of the kidney is not far from normal. If there is marked atrophy and the symptoms are severe nephrectomy with removal of the capsule is indicated. C. K. TRASSER S. J. M.D.

Gottlieb J G *Crossed Renal Dystopia (Dytopia) J 1 11 1 97 1 11 139*

Crossed renal dystopia is a congenital anomaly in which both kidneys are on one side but the ureter opens into the bladder at the normal sites. One of the ureters runs across the spinal column to the opposite side. In a left crossed renal dystopia the

left kidney is displaced to the right side. As the two kidneys are close together on the same side during embryonic life they may become more or less fused. The condition is therefore sometimes called a unilateral fused kidney.

One hundred and six cases of crossed renal dystopia have been reported in the literature. To these the author adds a case seen by Krejselburg and a case of his own. In thirty-one cases the condition caused symptoms but in only fourteen was the diagnosis made before operation. These fourteen cases which include the author's case are reported in detail.

Before laparotomy became general the diagnosis was always made at autopsy. In fourteen cases operated upon before the introduction of the roentgen ray the cause of the deaths. Of the fourteen cases diagnosed correctly before operation by means of the roentgen ray nine were operated upon without a death. In all but two of these the condition caused symptoms.

The secondary changes are generally due to defective drainage of urine which lead to hydronephrosis, pyonephrosis or the formation of calculi. The diagnosis can be made by roentgen examination following the introduction of opaque sounds into the ureters. To determine secondary changes in the kidney pyelography and pyeloscopy are necessary. If the dystopia is not causing symptoms it does not require treatment. If it does cause symptoms the indications are the same as those in simple dystopia. The fusion there is between the two kidneys the simpler the operative technique.

W. DREYER M. D.

Antonucci C and Cassi A *Case of Renal Ureters in Anomalies (Dytopia) J 1 11 1 97 1 11 6*

Six cases of anomalies of the kidneys and ureters are reported. The first case was that of an eighteen-year-old girl with symptoms of cystitis. Roentgen examination showed partial duplication of the ureter with two openings into a single kidney.

The second case was that of a man twenty-eight years of age who had suffered since childhood from dysuria. Roentgen examination showed two pelvises at a considerable distance from each other, the upper one apparently in a much worse condition than the lower one. The ureters were tortuous and dilated. As the left kidney was apparently non-functional all operation could not be performed but lavage of the right pelvis was followed by improvement. The organ was not a solitary kidney but a supernumerary kidney as the two parenchymatous functions independently of each other.

The third case was one of single tuberculous kidney with double pelvis and ureters in a woman twenty-two years of age

The fourth case was that of a young woman with cystitis complicating pregnancy. Roentgen examination showed a supernumerary left ureter

In the fifth and sixth cases there was a double left ureter

In conclusion the authors state that the inflammation pyonephrosis and pyonephrosis which are apt to result from such anomalies may be prevented by proper treatment

AUDREY G. MORGAN M.D.

Corbus B. G. Pylonephritis and Its Relation to Non Gonorrhoeal Urethritis. *J. Im. M. Ass.* 1927 **LXXIV** 2162

Elsendath D. N. The Inlying Ureteral Catheter in the Treatment of Pylonephritis and Other Renal Conditions. *J. Im. M. Ass.* 1927 **LXXIV** 2170

CORBUS states that non gonorrhoeal urethritis of bacterial origin is often the result of infection carried from within outward rather than from without inward and that pyelonephritis due to focal infection with poor kidney drainage is often the cause of persistent non gonorrhoeal urethritis. The treatment should include the removal of focal infection and the establishment of adequate kidney drainage

EISENDATH advocates the use of an inlying ureteral catheter for a period of days or weeks in the treatment of acute and chronic pyelonephritis anuria of the obstructive type severe colicky pain due to renal or ureteral calculi or kinking of the ureter in dropped kidney for side tracking of the urine following operation for vesicovaginal fistula and for the splinting of ureteral injuries incident to hysterectomy. A small catheter is best as it permits drainage alongside as well as through its lumen. Lavage of the renal pelvis can be done as a daily supplementary measure but is of little additional advantage. If there is a tendency for the catheter to be expelled when the bladder becomes filled and is evacuated spontaneously the use of a urethral inlying or retention catheter will provide constant drainage of the urine accumulating in the bladder

Persistence of the fever of pyelonephritis in spite of an inlying catheter suggests extension of the infection to the perirenal tissue or such a severe degree of parenchymal involvement as to make operative intervention advisable

C. TRAVERS STEVENS M.D.

Hubleur M. The Indigocarmine Test as a Method of Diagnosing Renal Tuberculosis (L'épreuve de l'indigo carmin comme moyen de diagnostic de la tuberculose rénale). *J. d'ur. méd. et chir.* 1927 **LXXI** 252

Under normal conditions indigocarmine injected intramuscularly appears in the urine in from six to ten minutes. If the function of the kidneys is impaired its elimination is delayed and the coloring of the urine is less intense. In the usual procedure an injection of 4 c. cm. of a 4 per cent solution of the

dye is made in the upper external surface of the buttock. A normal indigocarmine test does not necessarily prove that the kidney is intact anatomically but shows that it is functioning sufficiently well to keep excretion at the normal level

Wildbolz divides renal tuberculosis into the following three stages: (1) beginning tuberculosis (2) the stage in which there is considerable caseation of the kidney tissue and (3) the stage in which the parenchyma is almost entirely destroyed. The author reports a case in each stage giving the results of the indigocarmine test. He never found normal elimination of indigocarmine by a kidney that was incapable of performing its normal function and has never found poor elimination by an intact kidney. Even beginning tuberculosis always causes some delay in the elimination of the dye

The test is particularly important in early cases. In these the elimination of the dye is generally retarded for from two to five minutes. As a rule there is a certain parallelism between the severity of the lesion and the retardation but in some of the early cases studied by the author the elimination was greatly retarded. The reverse phenomenon of little retardation in advanced cases has never been seen. It appears that in early cases with great retardation the bacilli are particularly toxic but the author has never noted marked signs of nephritis in such cases

The indigocarmine test can be used also in kidney diseases other than tuberculosis. It is quick and simple and sometimes renders more painful examinations unnecessary

AUDREY G. MORGAN M.D.

Seres e Ibarz M. A Review of Eighty Five Nephrectomies for Renal Tuberculosis (Enseanza de mis 85 nefrectomías por tuberculo renal). *Clin. y lab.* 19 7 **XIII** 353

The author emphasizes the importance of an early diagnosis of renal tuberculosis and discusses the data that should be obtained before nephrectomy is advised

He states that any tuberculous focus in a kidney tends toward propagation until all of the renal substance is destroyed. The symptoms referable to cystitis associated with the renal tuberculosis often subside. The silent periods may be of considerable length but the vesical pain usually recurs. Blocking of the ureter with destruction of renal substance often suggests a clinical recovery. Occlusion may result from the lodgment of a calcareous mass complete caseation or the formation and contraction of fibrous tissue. The most complete exclusion results from fibrous tissue formation

Periods of clinical improvement in renal tuberculosis usually mean a pseudocure from total exclusion of the kidney true antinephrectomy or the exclusion of a tuberculous lesion within the kidney

The earliest symptoms of renal tuberculosis are increased frequency of micturition especially at night pain and tenesmus at the end of micturition pain radiating down the penis to the urinary meatus and pyuria

These symptoms especially when associated with a history of tuberculosis elsewhere in the body are sufficient to suggest renal tuberculosis. Palpation often reveals tenderness in the region of the kidneys. Albuminuria is almost always present and the urine is usually highly acid.

On cystoscopic examination the bladder may show tuberculous granulations, tuberculous ulcers or zones of increased vascularization. The same lesions may be seen at the ureteral orifice. The ureters should be catheterized and separate specimens of urine should be collected. A differential renal function test should then be made when possible. When this cannot be done because of the patient's intolerance to cystoscopic manipulative procedures the condition of renal function must be determined from Ambard's constant. WILKINSON, M. R. M. D.

Gottlieb J. The Early Diagnosis of Renal Tumors (S. I. d. g. o. t. c. p. r. e. d. e. s. t. m. s. (le) J. d. l. m. d. i. l. 97 uv 4)

Since the introduction of the roentgen examination great progress has been made in early diagnosis of renal tumors. The author employs pneumokidney in combination with pyelography and uses pyelocopy and nephroscopy as auxiliary methods. He has been unable to find any mention of pyelocopy and nephroscopy in the literature but with their aid he has correctly diagnosed all cases he has seen in recent years. He reports eight cases treated in the last three years.

He states that if the tumor begins in the parenchyma and is still small, no change in the form of the pelvis or the outline of the kidney may be visible in examinations with pneumokidney. If the tumor grows toward the periphery, there may be no change in the pelvis but pneumokidney will reveal a wavy and an asymmetrical renal outline showing that one or more nodules of the new growth have reached the surface. The picture may be even clearer enough to reveal the exact site of the tumor. If the neoplasm grows toward the pelvis, it may displace the pelvis as a whole or only some of the calyces compressing them as to give them curious shapes. If it has invaded the pelvis, the pyelogram will show partial or complete lack of filling of one or more of the calyces or of the entire pelvis. If the tumor has grown in different directions, both the outline of the kidney and the picture of the pelvis will be changed so that a combination of pneumokidney with pyelography gives a very clear picture of the anatomical relationships. If the tumor is large enough to be palpable, pneumokidney generally not necessary as the pyelogram will show whether it is a renal tumor.

By means of nephroscopy and pyelocopy the dynamics of the kidney can be studied—the mobility of the organ when the patient changes from a lying to a sitting position when he breathes and when the tumor is palpated. This method in combination with the layer of oxygen around the kidney shows the relations between the kidney and the neighboring

tissues and organs which are of importance in determining the indications for operation.

In some of the author's eight cases of renal tumor the case was neither a palpable enlargement nor hæmaturia.

AUDREY G. MORGAN, M. D.

Doan E. Further Contributions on Villous Tumors of the Renal Pelvis and the Ureter (W. I. r. e. B. e. t. g. k. e. n. t. d. e. Z. t. i. e. g. h. l. t. e. d. N. n. b. k. s. d. U. r. i. Z. i. f. o. l. ch. 97 8)

Of sixty-eight renal tumors operated upon in the clinic of Illinois, six had their origin in the pelvis of the kidney or the ureter. Five were villous tumors. The etiology of these neoplasms is not yet clear. Calculi and villous polyps are so rarely associated that there is probably no relationship between them. Multiplicity of the tumor, which is found in about half of the cases, is variously explained. The question as to whether the neoplasms are of multiple origin or are implantations is for the present unsettled.

In spite of the progress made in the past few years the clinical recognition of the tumors is still difficult. With the exception of cases in which cystoscopic examination reveals a papilloma hanging in the bladder from the lumen of the ureter or illi are found in the urine, a positive diagnosis before operation is rare. Occasionally, however, the presence of such tumors can be demonstrated as in one of the author's cases by pyelography. In operative exposure of the kidney is not always sufficient.

The author agrees with those who regard these tumors as malignant. The histological picture is of only relative significance in this respect since even though it appears benign the papilloma constitutes a precancerous condition. Therefore, conservative the aptest methods cannot be considered. Theoretically, nephroureterectomy is indicated in all cases but this operation is performed rarely seldom because (1) the exact diagnosis is not always made before the operation and (2) the operation appears to be too formidable for a sanguine patient. Both of these objections would be overcome by a two-stage procedure but this is often refused to permit a second intervention of the ureter. Frequently does not admit because of the use of the hope that a recurrence will not develop.

The best method of performing total nephroureterectomy is that of Marion. In his operation is begun with high section the sclerod of the ureters freed from below upward, as high as possible and the operation terminated in the lumbar region. G. W. H. (2)

BLADDER URETHRA AND PENIS

Marion and Cl. A. Another Case of Congenital Hypospadias of the Neck of the Bladder (Un. ou. d. h. y. p. o. s. p. a. d. i. a. s. g. t. l. d. c. l. c. i. a. l. J. d. l. m. d. i. l. 97 0)

The condition under discussion was described before a recent meeting of the French Urological

Society The new case reported by the authors was that of a man fifty five years of age who stated that for about twenty five years he had been able to urinate only slowly The number of micturitions during the day was normal As a rule urination was not necessary at night but in July 1912 as the result of a cold the patient was obliged to urinate one night fifteen or sixteen times Thereafter he noted nothing abnormal for three years except that he sometimes found it necessary to make an effort to urinate

In 1915 he developed hemorrhoids and was then obliged to urinate during the night several times Examination revealed congestion of the anus and prostate Subsequently there seemed to be a relation between the condition of the hemorrhoids and the difficulty in urination

At first an effort was necessary at the beginning of urination but in the period from 1920 to 1924 the condition grew worse and the effort on micturition was so great that some faeces was generally passed at the same time In February 1927 the patient had an attack of intense pain which he thought was kidney colic Chevassu gave treatment for bladder spasm Roentgen examination did not show any calculus and cystography failed to reveal a ureteral reflux or diverticulum

Cystography was followed by an attack of intense spasm of the sphincter The only nervous symptom was exaggeration of the patellar reflex Marion interpreted the symptoms as those of congenital hypertrophy of the neck of the bladder Chevassu then made another thorough examination to see if some cause for the spasm could be found in the urethra but nothing was discovered Following extirpation of the hypertrophied neck of the bladder the patient was able to urinate normally within twenty five days

AUDREY G MORGAN M D

Craig G and Brown R K L The Surgery of Epithelial Bladder Tumors *Med J Australia* 1927 Supp 11 p 337

The authors discuss epithelial tumors of the bladder from the standpoint of the results of early treatment the relative degrees of malignancy of the neoplasms and the results of treatment by surgery diathermy and X ray and radium irradiation

Up to the beginning of the present century the results of the surgical treatment of epithelial tumors of the bladder were poor Relief could be given only by the administration of opiates Gradually the prognosis became improved by the use of the cystoscope and fulguration Beer of New York was the first to treat these tumors under visual control by means of heat generated by the high frequency current and conveyed to the neoplasm by an insulated flexible wire passed through the operating cystoscope

The cause of these neoplasms is not known but their incidence is high among workers in the aniline dye factories of Germany and four times as high in men as in women They occur most frequently between the ages of twenty and sixty years

The diagnosis rests largely on the cystoscopic findings A very constant sign is hematuria

A successful result from treatment depends largely on repeated follow up examinations and re treatment of such small recurrences as may be found until complete eradication of the disease has been attained When the tumor is small and of the papillomatous type the treatment may be carried out through the operating cystoscope unless the growth is situated around the vesical neck The larger growths demand open operation with destruction of the tumor by powerful diathermic currents Some of the larger sessile tumors are very difficult to treat even by excision

CLAUDE D HOLMES M D

SURGERY OF THE BONES JOINTS, MUSCLES, TENDONS

CONDITIONS OF THE BONES JOINTS MUSCLES TENDONS ETC

Albee F H My fascitis A Pathological Explanation of Many Apparently Dissimilar Conditions 1 J S 8 19 7 53

Myofascitis is defined by the author as a focal manifestation of a toxic condition of the blood with inflammation and symptoms at the fascial insertions in bones. When the fascial insertions are placed under traction the symptoms are greatly increased. In about 90 per cent of the cases the toxins are absorbed from the colon. The condition may be manifested by lumbago, sacro-iliac lesion, scapulo-humeral pain in the feet.

The treatment consists in the removal of foci of infection, lavage of the colon and a low residue diet.
FL EN, J B R, JES, R M D

Kanavel A B The Dynamics of the Functions of the Hand with Considerations as to Methods of Obtaining the Position of Function by Splints Med J 1 19 9 7 598

In this paper which was one of a series of post graduate lectures delivered at Melbourne Australia Kanavel emphasizes the importance in the treatment of lesions of the hand of a knowledge of the function as well as the anatomy of the hand.

The primary actions of the hand are flexion, extension, abduction and adduction of the fingers, apposition of the thumb to the fingers and rotation of the hand. The actions of the wrist are supplementary to those of the hand. Loss of any of these actions leads to impairment of function.

Flexion of the fingers is carried out by the flexor tendons assisted by the lumbrical and is most effective when the wrist is dorsiflexed. In dorsiflexion of the wrist passive tension of the flexors is increased, the tension of the extensor muscles is relaxed and the proximal phalanges are held partially flexed. Flexion of the proximal phalanges is due to the lumbrical muscles and in dorsiflexion of the wrist the power of the lumbrical muscles is at its maximum.

Adduction and abduction of the fingers are carried out by the interosseous muscle aided by the extensors and flexors. In order to preserve this action it is well during treatment of the hand to keep the fingers slightly separated from each other about midway between abduction and adduction.

Flexion of the thumb is maximal when the thumb is abducted. Apposition of the thumb to the finger is one of the most important actions of the hand. While it may be taken over to a certain extent by the flexors and adductor of the thumb it is by no means perfect under such circumstances. During

treatment the thumb must be kept not only abducted but also rotated so that its volar surface faces the volar surface of the finger tips.

The position of function of the hand is dorsiflexion of the wrist, flexion of the fingers to 45 degrees, slight separation of the fingers and abduction and rotation of the thumb to bring it in a position of apposition. If the hand is maintained in this position during treatment minimal movement will suffice to give function. When there is a considerable loss of movement from nerve lesions or fibrosis. Moreover with the hand in this position it will be easier to apply splints and apparatus to break adhesions and obtain function.

During the acute stage of a lesion of the hand splints may be used to maintain the hand in the position of function. Later they may be used to bring the hand into the position of function if this is not done during the treatment or to break up adhesions. It is essential first to get the hand into the proper position. When this has been accomplished various attachments may be added to the splints to produce flexion, extension, abduction or rotation.

The splints used by Kanavel are made of 3 mm of hard aluminum and are covered with piano felt. They are fixed to the hand by straps and buckles. Rather than have a manufacturer make the splints Kanavel prefers to make them himself in order to adapt them exactly to the requirement of each case.

The splint to produce dorsiflexion of the wrist is an aluminum plate made to fit the volar surface of the forearm and cut out at the lateral side of the wrist and under the thenar eminence to allow abduction and rotation of the thumb. At the wrist the splint is cocked up to raise the palm. From the lateral side of the palmar plate a rolled aluminum tube projects outward to rest between the thumb and the palm and hold the thumb in abduction. The angle at the wrist is increased daily as dorsiflexion progresses. Abduction and rotation of the thumb are produced by means of an elastic band fastened through a slot on the ulnar side of the splint and slipped around the proximal phalanx of the thumb. During the treatment for the acute stage of the lesion the splint may be worn with or without the thumb attachment.

To correct extension deformity of the fingers a U shaped bar is attached to the undersurface of this splint. Leather loops are fitted to the finger and a gentle pull is maintained by means of padding and buckles. The U bar is moved forward or backward depending upon the angle of pull necessary to correct the deformity. In the beginning of treatment for severe extension deformity the author occasionally employs the method of

Dickson in which a plaster cast is applied to the forearm and hand and the fingers are gradually flexed by means of pads of piano felt forced between the splint and fingers.

When there is flexion deformity of the fingers of moderate degree and the proximal phalanx is flexed a dorsal splint may be used. This splint fits the dorsum of the forearm and hand and is dorsally flexed at the wrist. To the back on the dorsum of the hand are riveted arms of aluminum which project over the fingers and are slightly separated from each other. The fingers are pulled toward these arms by means of springs or elastic bands. If the proximal phalanx is extended and the middle and distal phalanges are flexed the dorsal arms are continued out for some distance beyond the ends of the fingers and bent forward so that the pull of the tension will be in line with the forearm. There must be no dorsal pull.

The thumb is usually drawn into position by means of springs or elastic bands attached to an accessory arm which is riveted to either the volar or the dorsal splint.

Too great tension must be avoided. The desideratum is moderate tension over a long period of time. As the trophic condition of the hand is usually poor care must be taken to prevent pressure necrosis. The patient should know the rationale of the treatment and should be taught how to take the splint off and put it on. The splints are worn for from one to three months. In some cases they may ultimately be worn only at night.

MICHAEL L. MASON, M.D.

Lusskin H. and Sonnenschein H. Low Back Sprain The Sacro Iliac Syndrome *Am J Surg* 1927 III 534

The authors report that a study of cases in which fractures of the pelvis had caused death showed no evidence that the upper portion of the sacrum had moved forward on the sacro iliac joint. In some cases however the iliac part of the gluteus maximus and hamstrings may pull the lower part of the sacrum forward shearing the joint surfaces. This results in injury to the cartilage and a true traumatic synovitis or arthritis.

In acute cases of such injuries the treatment should consist in rest of the part obtained by the application of adhesive strapping or a plaster of Paris cast. In chronic cases with spasm of the hamstrings the hamstrings should be stretched and the patient then turned over and sudden direct pressure applied over the upper part of the sacrum. For these procedures anesthesia is required. A plaster spica should then be applied for three months. In cases of recurrence operative fixation must be considered.

ELVEN J. BERNHEIMER, M.D.

Zadek I. and Jaffe H. L. Cysts of the Semilunar Cartilages of the Knee *Arch Surg* 1927 XV 677

Cysts of the semilunar cartilages of the knee were formerly believed to be ganglia resulting from soften-

ing and colloid degeneration of tendinous or periosseal tissues about the knee produced by disturbances of nutrition following trauma. Phemister favors this theory but does not believe that the cysts are primarily of vascular origin or invariably associated with trauma. He and previous investigators failed to find endothelium lining the cysts but Zadek and Jaffe attribute their failure to the fact that they examined only large cystic areas which are not altogether typical. Ollerenshaw was the first to find flattened endothelium similar to synovial membrane endothelium and to suggest the developmental origin of the cysts. He believed that the cysts are the result of small endothelial nests included in the fibrocartilage during its development which began to secrete and became distended following trauma.

From a careful histological study of the smaller cysts Zadek and Jaffe conclude that such cysts are of congenital origin. They base this conclusion on (1) the multiplicity of the cysts (2) the occurrence of papillary synovial inclusions without cyst formation and (3) the absence of recent or old hemorrhage within the cysts.

They state that there is no evidence to support the view that the cysts are formed after tearing of the meniscus followed by invasion of the synovial membrane. The theory that the cysts are ganglia or are due to the degeneration of tissues beneath the cartilage and the joint capsule is refuted by the presence of an endothelial lining in the cysts of small or medium size.

The authors report the case of a young man who developed a cyst of the internal meniscus several weeks after he wrenched the knee.

ANTHONY F. SAVA, M.D.

SURGERY OF THE BONES JOINTS MUSCLES TENDONS ETC

Bristow W. R. Arthrodesis *Proc Roy Soc Med Lond* 1927 VI 111

Bristow suggests that arthrodesis be considered for cases of tuberculosis of the knee in children in which the bone is affected.

For old tuberculosis of the hip with deformity and fibrous ankylosis he prefers arthrodesis to osteotomy because the deformity is apt to recur after osteotomy. In the hip the intra-articular method is liable to fail. Bristow therefore uses the procedure devised by Hibbs in which the anterior two thirds of the trochanter is transplanted with about 2 in. of the cortical bone of the shaft of the femur. This bone graft is pedunculated and left with the upper part of the trochanter attached by periosteum. The free end—that taken from the femoral shaft—is laid along the superior surface of the neck of the femur which has been bared for its reception and is firmly wedged into a groove cut in the ilium above the acetabular rim.

Bristow emphasizes the value of arthrodesis also in the treatment of joint pain following fracture. For

old malunited fractures of the ankle with evidence of traumatic or mechanical arthritis he regards arthrodiesis as the procedure of choice

For spinal fusion he recommends the operation devised by Hibbs

S C WOLDENBERG M D

Ingeblytgen R Th Treatment of Septic Infection of the Knee (U b d B h d l b d s Py thr g) f t h g S d 9 7 lu 373

In exceptional cases of septic infection of the knee repeated punctures may bring about a cure but even in cases without complications a thrombosis probably the correct method of treatment

In seven cases of septic infection without fracture of the bone end active movement was carried out according to the Willems method The result was full mobility of the joint in five cases and only slight restriction of mobility in two cases No other method drained the joint so completely as the active movements

Active movement of a drain in septic knee is not painful but movement of a joint than abscess in the capsule is associated with pain

The movements must be active Only active movements are able to empty the knee joint completely During such movements the temperature falls rapidly and the general condition remains good

In cases of abscess of the capsule periarticular abscesses can scarcely be avoided but after they are opened and drained they do not constitute a contra-indication to continued movements

The treatment requires very close attention on the part of the surgeon and great patience and endurance on the part of the nursing staff It can be used in the cases of adults as well as in those of children

In septic infection complicated by fracture of the joint active movements cannot be recommended In three such cases treated by the author the infection was cleared out with a satisfactory result

Laeven A The Operative Treatment of Suppuration of the Knee (Z p t B h d l g h w K s l k t g) D i f Z i h f C l 9 5 6

The author reviews twenty cases of severe suppuration of the knee operated upon in the Marburg Clinic reporting the indications for the operative method used the after-treatment and the immediate and late results

To obtain drainage of the posterior cavity of the knee Laeven makes deep lateral incision on each side of the knee over the posterior slope of cartilage cover distal end of the femoral condyles up to the intercondylar fossa and removes both menisci with a scalpel The crucial ligaments then remain as a median longitudinal slip which holds the tibia tightly to the femur As the anterior parts of the joint and the popliteal bursa are also deeply opened on both sides to the patella the retention of exudate is no longer possible The joint then

presents a widely open tissue space which is easily drained and packed It is necessary to make the lateral incision deep enough so that there will be no depression in the soft parts behind the joint in which pus can accumulate Great care must be taken not to injure the posterior capsule of the joint in the operation

In the twenty cases reviewed aspiration and irrigation or lateral anterior arthrotomy had been done without result or the process was so severe that there was little prospect of a successful outcome from the more conservative procedures alone Fourteen of the twenty cases were cured In five a thigh amputation was necessary later One patient died of pneumonia seven weeks after the discharge of the condyles Another succumbed three weeks after amputation of the thigh from a streptococcal septicemia which developed from an abscess

Horizontal chiseling off of the femoral condyles should be restricted to cases in which puncture irrigation or anterior opening of the joint has been unsuccessful or because of peritricular perforation with phlegmon or general sepsis a cure can not be expected from conservative treatment With increasing experience the author has given primary resection of the condyles an increasingly wider application This operation was performed as the primary procedure in eleven of the cases reviewed In nine the knee joint was first opened by two lateral incisions Following the operation complete ankylosis of the knee is to be expected

In the after-care it is essential to fix the joint in the position in which ankylosis is to occur The extension with slight flexion In the cases reviewed this position was obtained by means of a plaster bandage plaster fixed with metal bands with extension apparatus T splint Brown's splint or splint devised in the Marburg Clinic In no case was one form of splint sufficient

Of fourteen patients with bony ankylosis ten could be traced The results in these ten demonstrated that in adults only slight shortening will occur if the knee becomes ankylosed in more or less extension The operation removes no bone in the long axis of the leg However slight degrees of shortening may result from deviation of the axis of the lower leg in the form of genu valgum or varum or slight subluxation of the knee joint

The author reports on three cases of resection of the anterior condyles for severe suppurative arthritis of the knee in children The importance of possible injury to the epiphyseal line of the femur is often outweighed by the seriousness of the disease If the leg can be saved there is a marked tendency to ard contracture in position of flexion The frequently observed subluxation of the tibia is due to injury to the crucial ligaments Horizontal condyle resection does not damage the epiphyses

In conclusion the author states that deep lateral incision and horizontal chiseling off of the condyles can be used successfully also in severe synovial

tuberculosis with mixed infection of the knee joint. The results of this technique are apt to be particularly good in such cases when the patient is young.

DESCRIZ (2)

Pouzet, F. Operation in Tibiotarsal Tuberculosis of Infants. The Late Results. (*L'opération dans la tuberculose tibiotarsienne de l'enfant: ses résultats éloignés*). *Revue d'Orthopédie* 1921, xxxiv, 3.

The author reviews thirty-nine cases of tibiotarsal tuberculosis which were treated by open operation in the clinic of Nove-Josserand. In twenty-five cases the operation was performed late after more or less prolonged conservative treatment. The fourteen early operations were done in cases in which there had been no immobilization or immobilization for three months, had been of no avail and the lesion was of relatively recent development. In eighteen of the twenty-five late cases the operation was performed because of aggravation of the lesions with extension to the subastragaloid region and calcaneum manifested by clinical signs, the roentgenogram or the lack of improvement after prolonged immobilization. In even cases the indication was early recurrence usually following a relatively slight primary accident.

In the fourteen early cases operation was performed because of the severity of the local lesion in twelve cases, acute symptoms in nine cases and the importance of the lesions revealed by the roentgenogram in nine cases.

A review of the history of the treatment of tibiotarsal tuberculosis on Nove-Josserand's service shows that in the period from 1896 to 1903 operation was performed in more than 50 per cent of the cases and astragalectomy was done in about 60 per cent of the operations. In the period from 1903 to 1921 operative treatment was given in only 37 per cent of the cases and only 30 per cent of the operations were astragalectomies. This change was due to the efficacy of conservative treatment.

Nove-Josserand removes not only the caseous bone but also any tissue that appears at all doubtful. In the technique used by him the perineal area is excised for wide exposure of the subastragaloid and astragalo-caphoid area as for double arthrodesis. After section of the ligament the foot is luxated inward. The astragalus is then raised with a bistoury and the calcaneum, caphoid and cuboid are examined. When these bones are diseased or of doubtful appearance they are extensively hollowed out, only a shell being left. Resection is done only when a particularly severe lesion extends beyond the limits of the bone. The establishment of adequate drainage is regarded as of the greatest importance.

After the operation the foot is put up in a circular plaster-of-Paris cast in the position necessary to make the mortise about against the scaphoid. The cast is left on for one month or, if there is no suppuration for two months. At the end of that time the drains are gradually removed. When the foot

has become sufficiently solid it is given a daily anesthetic bath if suppuration has occurred.

In the cases reviewed the astragalus was involved in thirty-nine, the tibia in twenty, the calcaneum in twenty-five, the caphoid in two and the cuboid in two.

Changes in the calcaneum were found in eight of the early cases and eleven of the late cases and lesions of the tibia in eight of the early cases and fourteen of the late cases.

The length of time necessary for complete healing of the fistulae and the resumption of weight bearing averaged eleven months after astragalectomy and thirteen months after tarsectomy. In favorable cases this was sometimes reduced to six or eight months.

The previous existence of an abscess or even of a fistula did not greatly modify the rapidity of convalescence after astragalectomy but prolonged it to an average of twenty months after tarsectomy. Delays in recovery seemed often to be due to the persistence of foci unrecognized at the time of operation. In four cases supplementary operations were necessitated by lesions of the tibia, calcaneum or caphoid that were not recognized at the time of the first operation, whether it was performed early or late.

Age has an influence on the duration of the treatment. Children under ten years of age healed more quickly than older subjects.

Of the thirty-nine cases a cure was obtained in twenty-eight (72 per cent) and will probably be obtained also in one case that has been treated comparatively recently. Nine of the patients died, some of them within five months and the others after from ten to twenty-four months from cachexia or associated lesions. This mortality of 23 per cent is high but is to be attributed more to the severity of the condition than to the operation itself. In the fourteen cases which were operated upon early because the severity of the lesion indicated that a cure by immobilization would be impossible, there were even deaths—two in six cases treated by astragalectomy and five in eight cases treated by tarsectomy—whereas in the twenty-five cases operated upon late there were only two deaths—one in eight cases treated by astragalectomy and one in eleven cases treated by tarsectomy. Therefore the mortality was 50 per cent in the first group but only 8 per cent in the second. In a previous series of cases treated by immobilization alone the mortality was 45 per cent.

In four of the twenty-eight surgically treated cases in which a cure was obtained there was a slight late complication in the form of a small abscess which produced a fistula and disappeared following the extension of an equinus either spontaneously or by curettage. In the four cases this complication developed one and a half, ten, eleven and fourteen years respectively after the operative cure but in no instance did it have serious consequences. The incidence of such late complications is slightly higher (14 per cent) in cases treated by

operation than in those treated by immobilization (6 per cent)

The author concludes that even in the most favorable cases operation does not yield as perfect results as immobilization. In a previous article he reported that of patients treated by immobilization alone 30 per cent had a normal function and 45 per cent had a very good function.

Pouzet conclude also that operation does not offer any greater permanency of cure. In the cases treated by immobilization alone the incidence of late recurrence was only 3.5 per cent and local small complications were less frequent than in the cases treated surgically. The general condition was the same in both groups.

A rule heal occurs more quickly in the cases operated upon than in those treated by immobilization but it does not occur as quickly as after other resection, such as those in the knee. Especially in severe cases it is impossible to obtain the long hypopharyngeal intubation. The cavities are too large and irregular to become filled up in a short time. Nea-

1. The prolonged drainage is necessary. Moreover, quick healing is prevented by the poor general condition of the patients who are treated surgically. Especially in the case of young patients the mortality of operation is high.

The author believes that immobilization should be given a thorough trial first and that operation should be performed when immobilization fails or to relieve it from the complications or the gravity of the obvious lesions that a good result cannot be expected from conservative treatment.

He states that the indications for operation can be extended only by careful investigation of the clinical roentgenographic signs upon which the prognosis of the lesion may be based. The life expectancy in which immobilization will probably result in a cure from cases in which operation will be necessary later. W. L. A. C. BURR ET MD.

FRACTURES AND DISLOCATIONS

And ei O I It Pos sible to D etermine the Ag of a
Fracture by Ro ntg n Examination and If So
to What E nt? If F ctur of tl Ep phy l
(S n q l p u t e p s b l d t m c e ll
ba l l j to ad g n letà d n f t t r
ll L f t t p i) Ch d g d o
(9 7 16

The author recently published an article on the roentgen appearance of fractures of different ages. He has found that the age of a fracture is indicated by the distinctness of the outlines of the fragments, the degree of opacity, the demarcation of the callus, the presence or absence of a structure within the callus itself, the appearance of the fracture line, and the degree to which the lamellar structure of the bone is restored.

In this article he discusses fractures of the epiphysis. Roentgen visibility of the callus begins about twenty days after the injury. Calcification pro-

gresses until after from four and a half to five months the outlines are distinct and the callus has reached the opacity of normal bone. The callus does not begin to show a lamellar structure until the end of the first year. The line of fracture disappears completely or almost completely in eight months but reappears later as a scar which is indicated by greater density of the bone.

The roentgen picture of fracture of the epiphysis differs from that of a fracture of the diaphysis in that during the first period the callus in the former type of fracture calcifies more slowly but later calcifies more rapidly until it reaches the opacity of normal bone. In fracture of the diaphysis the callus is generally smaller and the fracture line does not appear later

AUDREY G. MORGAN, M.D.

Phab B P eudarthroses (U be P e darth os)
D t h Zl ch f Ch 037 c 7

In 433 cases of fractures of long bones and the patella which were seen during the five year period from 1920 to 1925 a pseudarthrosis developed in 40 (9.2 per cent). The cases included fractures of the lower leg, the forearm, the neck of the femur, the humerus and the patella, and one fracture of a finger.

Of the fractures of the leg twelve were compound and all were produced by great force. With one exception the pseudarthroses occurred in the lower third of the leg. In two cases the cause was a marked dislocation of the fragments. In two others those of patients over fifty years of age it was poor regenerative power. Operation was performed in seventeen cases. One patient who was fifty nine years of age was given a supporting apparatus. Nearly all of the operations were performed within from three to eight months after the accident. Ethel anesthesia was employed. The operations consisted in subperiosteal preparation of the fracture end, the removal of connective tissue and cartilage fragments, exposure of the medullary cavity and careful adaptation or wedging of the bone ends. In ten cases simple suturing with silver wire or rustless steel was done. In seven a wedge including periosteum, cortex and medulla was sawed from the fractured end of the tibia displaced upward into a groove made in the other fragment and fixed with wire sutures (Albee's fracture plastic of the tibia). At re-examination thirteen of these cases showed firm union. In four the bone still gave under strain but with the aid of a Brunn splint the patients were able to work. The compensation allowed in the latter cases was for disability of from 5 to 80 per cent.

The prognosis was poorest for the pseudarthroses of the femur. In these cases also the fracture force had been great. All of the seven fractures were compound. Operation was performed between the third and fifth month after the accident except in a case of sequestrum removal in which it was not done until after two years. The poor tendency to heal was due chiefly to marked displacement of the fragments. All of the cases of pseudarthrosis of the

forearm were treated first by another surgeon. In 115 cases of forearm fracture in which a tibial implant was fixed with wire at the primary operation no pseudarthroses developed. In four of the seven cases of pseudarthrosis simple wire suturing was done. In two a tibial implant was fixed by wiring and in one an implant was fixed by catgut. In three of the seven cases firm union was obtained. In two cases compensation was received for 50 per cent disability. In one of these there had been a co incident fracture of the humerus and injury of the radial nerve. In the other the radius still gave way under stress after the operation but the ulna was united firmly. Of the patients without firm union one received compensation for disability of 50 per cent and another forty five years of age received compensation for disability of 65 per cent because of greater loss of mobility of the arm. The third patient broke his arm again three months after the first operation and at the second operation the medullary cavity was found to have become closed again. The medullary cavity was re opened and a tibial implant was introduced. With the aid of a supporting apparatus the patient is now able to do any kind of work but is receiving compensation for 25 per cent disability.

The four pseudarthroses of the upper arm occurred in patients between thirty and forty years of age. The fractures were all compound. In three cases operation was performed about four months after the accident and in one after an interval of fourteen months. In one instance it revealed the interposition of muscle tissue. In three of these cases it consisted in intramedullary pegging the fitting together of step like notchings and fixation by wire suture. In one case periosteal suturing was done. Three months later firm union was found in all of these cases but the patients received compensation for disability of 10, 40, 45 and 50 per cent for three years.

In the five cases of pseudarthrosis of the tibia operation was followed by firm union. The pseudarthroses of the neck of the femur occurred in patients over sixty years old. In one case osteotomy was done but in the others no operation was performed. The patients are receiving compensation for disability of from 40 to 80 per cent. The one patient with pseudarthrosis of a finger refused operation.

Of forty pseudarthroses thirty four were operated upon and in twenty six (76.4 per cent) of the latter firm union was obtained. In three cases the pseudarthrosis was caused by too wide a gap between the fracture ends with the interposition of muscle tissue. Firm union was rarely obtained in the cases of patients more than fifty years old. The severity of the trauma and the correspondingly complicated nature of the fracture were important factors in the development of the pseudarthroses.

The author advises complete immobilization of the fractured part. Early strain on the broken bone before it has completely united favors the development of pseudarthrosis. The importance of a diet

rich in vitamins and of the administration of calcium and phosphorus is emphasized. The use of foreign material and dead tissue is condemned. A transplant may be fixed with wire or kangaroo tendon. The Borchardt instrumentarium for the Albee operation is of value.

An attempt to cure a case of pseudarthrosis of the lower leg by periaxial sympathectomy was unsuccessful. HAUMANN (2)

Ely L. W. The Internal Callus. An Experimental Study. *Arch Surg* 1927 xv 930.

As it is difficult to demonstrate internal callus in healing fractures either experimentally or by roentgenograms if the fracture is complete Ely solved the problem by producing an injury to the shaft of a long bone without breaking its continuity.

In experiments on eleven cats the anteromedial aspect of the tibia was exposed aseptically, the periosteum incised and a drill hole 2.7 mm. in diameter was bored into the marrow canal. In six animals the wound could not be located later. The five others were examined from fourteen to sixty nine days after the operation.

The first stage in the reparative process was filling in of the hole by fibrous tissue which was continuous with the periosteum and extended deep into the bone marrow. In this tissue bone trabeculae were laid down without previous cartilage formation. In some instances the trabeculae were most numerous near the cortical surface and in others in the hole or in the marrow beneath the hole. Some bone formation occurred outside the cortex but this was not active in the repair of the defect. The photomicrographs show definite evidence of bone formation also on the cut margin of the cortex. RALPH SOTO HALL, M.D.

Osgood R. B. Compression Fractures of the Spine. Diagnosis and Treatment. *J. M. Iss* 1927 lxxvii 1563.

Compression fractures of the spine occur most commonly in males in the active period of adult life. They constitute 40 per cent of all fractures of the spine. In the great majority of cases the body of only one vertebra is crushed. In from 70 to 80 per cent of the cases the vertebra involved is the eleventh or twelfth thoracic or the first or second lumbar vertebra. In from 50 to 60 per cent it is the twelfth thoracic or the first lumbar vertebra.

The complications of compression fracture of the spine include neurological symptoms, fractures of the laminae, fractures of the transverse or spinous processes, and fractures of the bones below the knee. In cases of fractures sustained in falls an examination should always be made for tarsal fracture. The mechanism involved in spinal compression fractures is acute hyperflexion of the spine.

The early typical symptoms of compression fractures of the spine may be masked by the general shock and the pain of associated bruises and fractures. The late symptoms are serious discomfort, disability, the development of a kyphosis, and pain

local ed in the injured area and radiating down the extremities. These symptoms may not develop until month or years after the injury.

Fracture of the sacrum whether impacted or crushed fractures heal quickly and permanently with very little treatment. In fractures of movable vertebrae without fracture of other elements than the body of the vertebra there is a full return of function in from four to six months following recumbency. Hyperextension with the spine immobilized in a plaster jacket or the use of the Wallace spinal bed. At the end of six or eight weeks in such case the upright position and ambulatory life may be resumed gradually the spine being protected from ten to sixteen weeks longer by a stiff removable jacket. In the last five or six weeks of the treatment physical therapy may be given. The author has had no experience with early cases complicated by fractures of the laminae without neurological signs. Late cases with disability and pain progress well with operation. In Osgood's opinion a trial of conservative treatment is advisable in many instances as well as in the majority of early cases.

AN HONY F SAYA M D

Gr m nn M The Treatment of Fracture of the Thoracic and Lumbar Vertebrae (Z B h d l u g d F k t n d B t n d L d n b l) Z t l b l f C l 9 7 l 5 4

In fracture of the thoracic and lumbar vertebrae operation has little chance for success. In cases of total lesions operation is not to be considered. In partial lesions the cause of the symptoms not compressive but contusion of the cord. Vertebral fractures without cord symptoms are usually treated conservatively with bed rest in a suitable position but there is a difference of opinion as to the length of time the bed rest should be continued and as to whether after the patient is up the spinal column should be supported by a brace.

The author reports several cases of vertebral fractures which illustrate some of the difficulties encountered. One is the case of a sixty-year-old laborer with a compression fracture of the second lumbar vertebra. The patient is still unable to work after

six months of bed rest and the wearing of a brace for a year. A striking finding in this case was marked osteoporosis of the entire spinal column.

Another case was that of a girl twenty-five years of age who had a compression fracture of the second lumbar vertebra. As the fracture was still unhealed after four months of rest in bed operation was necessary.

The third case was that of a man forty-three years of age who sustained a compression fracture of the third lumbar vertebra. After a short time this patient became symptom free and after six weeks he was able to be out of bed nearly all day. At the end of nine weeks he was discharged from the hospital without any disability. Fifteen weeks later he was readmitted because of local and radiating pains. Examination then revealed a marked kyphosis and a distinct gibbus. So-called Kummell's deformity is not always due to a fracture. It may sometimes be produced by trauma which injures the internal tissue of a vertebra so that as demonstrated by Chasten Schmorl and Goecke a degeneration of the cells results and the vertebra which appears intact in the roentgen picture breaks down in the course of weeks or months.

The fourth case reported by the author was that of a twenty-year-old girl who had a compression fracture of the second lumbar vertebra. As bony union failed to occur a graft from the tibia was implanted. After eight weeks the patient was able to leave her bed without a supporting apparatus.

S OERMA V (Z)

Olecranon H. Some Considerations on the Treatment of Fracture of the Olecranon (Quilley d t l t t m n t d e f a t d l t g l) l t l g S d 9 7 l 353

The author reports a case of transverse fracture of the body of the ulna with posterior displacement of the posterior fragment and fracture of both malleoli. A posterior curved incision was made and the bony fragments were fixed with metal nails. Tenotomy of the Achilles tendon was performed. Recovery resulted with good mobility and satisfactory function.

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

BLOOD VESSELS

Gregora H. Gangrene of the Extremities Following Subcutaneous Rupture of Blood Vessels by Dull Force (Extremitätengangraen nach subcutaner Gefässruptur durch stumpfe Gewalt) *Beitr. klin. Chir.* 1927 vol. 199, 229.

Gangrene of the extremities may result from subcutaneous injuries causing marked destruction of the deeper tissues or much less frequently from lesser trauma injuring the main blood vessel. The author reports four cases of the latter type seen in Schloffer's clinic since 1917. In three cases the popliteal artery and in one case the femoral artery was injured. In three cases the artery was torn transversely and in two of these this injury occurred as a complication of subcutaneous fracture. In one of the latter the vessel was torn by a fragment of the broken bone and in the other by stretching or compression.

A complete tear of a vessel may sometimes heal spontaneously as the result of involution of the intima. Partial subcutaneous tears of blood vessels have a more unfavorable prognosis than total ruptures. Tears of the inner vascular membrane resulting from subcutaneous injuries and followed by thrombosis may lead to gangrene. Vascular injuries are most common in the lower extremities because of the proximity of the blood vessels to the bones and their fixation in the fasciae and aponeuroses such as Poupard's ligament, the fascia of the adductor canal, the soleus tendon and the ligamentum interosseum. They occur most commonly at the sites of bifurcation of the vessels.

The most common causes of vascular injuries are fractures. With the exception of fractures of the forearm, all fractures may lead to gangrene. Subcutaneous injuries of blood vessels due to lacerations are most common in the upper extremity but are relatively seldom followed by complete gangrene.

The author reports a case of tearing of the brachial artery and vein in the sulcus bicipitalis in a dislocation of the elbow which healed following ligation.

In the lower extremity only anterior dislocation of the knee plays a rôle.

Besides fractures and dislocations, all types of dull injuries such as bruises, forced muscle action, squeezing and over stretching may lead to gangrene.

The diagnosis of a recent vascular tear is frequently difficult. Important signs are disturbances of sensitivity and motility, coldness and discoloration.

The prognosis for preservation of the limb is not favorable but the mortality has decreased in recent years. The prognosis is very unfavorable when the popliteal artery is completely severed as the collateral system is easily obstructed by the resulting hematoma. In tears of the femoral axillary and brachial

arteries the prognosis is often doubtful. The formation of an aneurism is favorable but this is rare in subcutaneous injuries.

In the treatment the injured vessel should be immediately exposed and an attempt made to suture it. Even if a thrombus forms later at the site of suture the suturing allows time for the formation of collateral circulation. Ligation is in general less favorable than vessel suture. The advisability of simultaneous ligation of the vein is disputed. The formation of a compressing hematoma must be prevented.

In the discussion of this report Gold cited a case of gangrene of the toes following the use of gynergen in Bredow's disease (0.5 c cm twice daily for seven days and 1.0 c cm twice daily for two days). In this case the removal of the second and fifth toes of the right foot became necessary. KORNIG (Z)

Brown G. E. and Henderson M. S. The Diagnosis and Treatment of Arterial Vascular Disease of the Extremities. *J. Bone & Joint Surg.* 1917, 15, 613.

The authors present a classification of the arterial disturbances of the extremities. Diseases of the peripheral arteries are divided into two main types depending upon their functional or organic nature. Each of these is subdivided according to local or general distribution. The organic or obliterative types of disease consist of two main types: thromboangiitis obliterans or Buerger's disease and arteriosclerotic disease with or without thrombosis. Diabetic gangrene is a form of the latter condition. In the authors' experience these types constitute more than 95 per cent of the organic diseases of the extremities. Of the functional types there are two main distributions—the vasospastic which includes a large group of disturbances and in its more typical form is recognized as Raynaud's disease and the vasodilator which in its typical form is known as erythromelalgia.

The treatment of the various vascular diseases is necessarily different for the two main types. In the vasomotor types with the color and low surface temperature indicating vasoconstriction treatment is not indicated in the absence of pain or trophic changes. Prophylactic measures are advised for protection of the extremities in the colder months of the year; frequently a change of climate is necessary. In many of the mild painless cases reassurance is the sole requirement. For frank Raynaud's disease of the hands no curative treatment is known but in Raynaud's disease of the lower extremities lumbar sympathectomy is curative. The treatment of erythromelalgia and allied vasodilator syndromes is most unsatisfactory. Radium has been used over the areas of burning

but the results have been questionable. In one case in which roentgen rays were applied over the lumbar and sacral spine there was some improvement. Frequently the treatment resolves itself into symptomatic relief of the attacks of burning by frequent immersion of the feet in cold water. Partial control of the symptoms is obtained by elevation of the lower limb at night and the use of atophan.

The cases of organic occlusive disease of the arteries are treated differently. In the early or pre gangrene stage the treatment is protective and active. The protective measures include extreme care in the handling of the feet, the use of proper shoes and protection against surgical tinkering and traumatic and thermal ulcers. The active treatment is directed toward increasing the blood supply in the collateral circulation. Postural exercises, contrast baths for the extremities, graduated exposure of the parts to electrical light bulbs and restriction of activity are most important measures which encourage ulcers if continued long enough.

In cases of gangrene and continuing pain the chief problem is the relief of the pain. Opioid narcotics are useless. The injection of formalin protease will give relief for a variable period in 80 per cent of the cases. If the pain cannot be controlled, amputations may be carried out to heal the trophic ulcers. If the pain cannot be controlled surgically, measures—amputation of the true interferon in the constrictor paths—are advised.

In cases of gangrene of the main vessel due to thrombosis, the amputation above the knee has been the usual surgical procedure. Allen and McVerding have shown that amputation below the knee is successful in 80 per cent of cases. The procedure is operative and postoperative measures of treatment are carried out. Similar results cannot be obtained in cases of gangrene due to arteriosclerosis. Lumbosacral ganglionectomy has been performed by Adson in eleven cases of thromboangiitis obliterans. In nine the results were satisfactory. Relief of pain was complete and large trophic ulcers healed. The application of this operation rests entirely upon careful selection of the cases, the possibility of vasodilatation in the collateral vessels must be demonstrated before operation. In selected cases encouraging results have been observed. The results of the operation in this disease can be determined only after a long period of postoperative observation.

Farmer H. L. Abdominal Aneurism with a Report of Three Cases. *J. R. Ig. I.* 927 55

Aneurism of the abdominal aorta is comparatively rare. Syphilis the chief underlying cause. The

aneurism usually occurs in the upper portion of the abdomen proximal to or in the region of the coeliac axis. As a rule the sac presents anteriorly and to the left side. The symptoms are variable depending largely upon the size and location of the aneurism. Pain is common but varies in its character and intensity. Pressure symptoms may predominate. Chemically the most valuable objective finding is an expansile pulsating tumor situated either in the epigastrium or posteriorly in the left upper lumbar region.

Abdominal aneurism must be differentiated from tabetic crisis, neuritis, gall stones, pancreatic stones, lead colic, appendicitis, peptic ulcer, gumma of the liver, nephrolithiasis and benign and malignant tumors of the stomach, pancreas, kidney and omentum. Abnormal throbbing of the aorta noted in neurotic and hysterical states, forceful pulsation in aortic insufficiency and preternatural pulsations found in anemia and in arteriosclerosis in old men with thin abdominal walls must not be mistaken for signs of aneurism.

The roentgen examination may be of great aid in the diagnosis. Direct visualization of the tumor fact requires special effort but is possible if there is sufficient calcification in the walls of the sac and vessels. If the aneurism is located high under the dome of the diaphragm it may be directly outlined by the adjacent air bubble in the stomach and its pulsation may be studied under the roentgenoscope. The aneurism may be directly visualized with the aid of pneumoperitoneum. It may be revealed also by injecting air into the colon.

The indirect signs of abdominal aneurism are no less significant than the direct signs. The sharp cleavage areas of destruction in the bodies of the vertebrae are fairly typical. The intervertebral disks remain intact. In each involved vertebra there is an individual crescent shaped area of bone destruction. Usually there is involvement of more than one vertebra and the spine presents a scalloped appearance. As a rule the bone destruction occurs along the left anterior aspect of the vertebral bodies. The lower ribs on the left side or the transverse processes of the upper lumbar vertebrae may show rarefaction from pressure absorption.

The prognosis in abdominal aneurism is unfavorable. The duration of the condition varies from three months to three years. Heroic treatment with iodides and mercury has relieved the symptom but has produced no decrease in the size of the sac. Death usually results from rupture of the aneurism.

Three cases are reported in detail with the history and the roentgen and autopsy findings.

ADOLPH HARTUNG, M.D.

SURGICAL TECHNIQUE

OPERATIVE SURGERY AND TECHNIQUE POSTOPERATIVE TREATMENT

Meleney F L. Humphreys F B and Corp L.
An Unusual Fatal Operative Wound Infection
Yielding a Pathogenic Anaerobe of the Gas
Gangrene Group Not Hitherto Described with
Direct Reference to Catgut as a Source. *Surg
Gynec & Obst* 1927 xlv 775

From the lesion in a fatal operative wound infection the authors isolated a new species of pathogenic anaerobic bacillus of the gas gangrene group which they call *Clostridium oedematoides*. The source of the infection was traced to surgical catgut which was not sufficiently sterilized.

Gas gangrene is not a specific infection but is usually a mixed one. Several varieties of spore bearing organisms (called generically clostridia in recently adopted nomenclature) can be isolated from the great majority of traumatic cases. These clostridia are naturally saprophytic inhabitants of the intestinal canal of man and domestic animals and of the soil contaminated by their excreta. They may therefore occur in catgut which is manufactured from the muscularis mucosae of the intestines of sheep.

Of the many anaerobes obtained from gas gangrene infections only a few have consistently met the requirements necessary to establish them as causative agents of the disease. These are *Clostridium welchii* (*Bacillus aerogenes capsulatus*), *Clostridium oedematis maligni* (*Vibrio septique*), and *Clostridium novyi* (*Bacillus oedematis maligni* II). Each of these produces *in vitro* a highly specific exotoxin for which a specific antitoxin may be prepared.

The organism which the authors recovered from a fatal case is culturally different from the three others. It produces a true exotoxin not neutralizable by the antitoxins of the others and its specific antitoxin is ineffective against the toxins of the others.

The histories of patients in the same hospital who were operated upon about the same time and developed fatal wound infections of the gas gangrene type are reported. Clinically the condition was characterized by a brawny red oedema of the abdominal wall around the wound, severe pain at the site of the lesion, fever, leucocytosis, a rapid and feeble pulse, nausea, profuse perspiration and toward the end somnolence, irritability, profound prostration and circulatory failure. The organism described was obtained at autopsy on one of these patients. No cultures from living patients were positive since large pieces of deep tissue are necessary for anaerobic culture work. The superficial oedema is only a toxic reaction; usually the organism does not penetrate to the surface.

The chromic catgut used in the operating room at the time the cases reported were operated upon yielded *Clostridium novyi* in investigations made by another bacteriologist and two strains of the newly discovered species: two strains of hemolytic *Clostridium welchii* and two other non pathogenic spore forming organisms in investigations made by the authors.

Clostridium oedematoides is a large strictly anaerobic actively motile gram positive bacillus with square end spores. Spores are formed readily in plain broth. On sheep's blood agar the colonies are discrete gray and stellate with irregular margins. They produce no hemolysis. In the presence of 1 per cent dextrose large quantities of gas and acid are formed. The organism was lethal in small doses for eight species of laboratory animals tested. It may be recovered from the lesion, peritoneum and blood. The typical lesion in the guinea pig is an extensive slightly hemorrhagic oedema of the subcutaneous tissues which is neither as extensive nor as colorless as the lesion of *Clostridium novyi* nor as hemorrhagic as the lesion of *Clostridium oedematis maligni*. Gas formation is minimal. Oedema is most marked when death occurs slowly.

The organism produces an exotoxin which is filterable and thermolabile and when injected in sublethal doses into animals stimulates antitoxin formation. Reciprocal tests with sera and toxins and cultures of the other pathogenic anaerobic bacilli of the gas gangrene group showed it to be a different species. The article includes a chart differentiating the three recognized pathogenic anaerobes and this new species as to spore formation, colony appearance, saccharolysis and proteolysis.

The pathogenicity of the organism for man is indicated by its occurrence in a fatal human lesion and its lethal effect on animals. The authors emphasize that manufacturers should adequately demonstrate the sterility of all catgut by both aerobic and anaerobic methods. MAURICE MEYERS M D

ANÆSTHESIA

Hatcher R A. The Rectal Administration of Ether and Oil and Morphine, Magnesium Sulphate and Ether in Surgery and Obstetrics. Report to the Council on Pharmacy and Chemistry. *J Am M Ass* 1927 LXXIX 2114 2189 2258

Hatcher states that the administration of ether with oil or liquid petrolatum constitutes an advance over other methods for the rectal or colonic administration of ether.

Anæsthesia is induced readily with varying proportions of ether and oil but it is probable that a

mixtures of equal volumes of ether and olive oil or liquid petrolatum is the most suitable for inducing anaesthesia by rectal instillation after the subcutaneous injection of morphine. Such a mixture readily gives up the ether for absorption into the circulation in adults as well as in children and probably retards the testicles than mixtures containing higher percentages of ether.

As soon as the operation is complete the bowel must be washed and all residual mixture removed. The buttocks and thighs should be protected by an application of petrolatum to prevent irritation from ether that escapes. The patient must be told to resist the desire to expel the mixture. Pressure against the anus must be necessary to prevent voluntary expulsion. Some patients cannot retain a distended rectum.

The ether is absorbed from the colon and rectum. Therefore the warmed mixture should be introduced high up in the rectum. About ten minutes being taken for its action.

Rectal or colonic ether anaesthesia has the following advantage:

1. It spares the respiratory passages to some extent and causes less irritation than the inhalation of ether.

It is associated with less laryngeal and bronchial secretions.

3. It lacks certain disagreeable features of halothane anaesthesia connected with the reflexes from the face and respiratory passages.

4. The stage of excitement is short and oft-lacking.

5. There is less nausea and vomiting during the anaesthesia after the operation.

6. It leaves the field clear for operations about the face and head.

The method has the following disadvantages:

The depth of anaesthesia is not under such perfect control as in inhalation anaesthesia and this disadvantage is so great that it must often outweigh all of the advantages of this method. The lack of perfect control of anaesthetic means death.

The anaesthetic causes some irritation of the testicles, nausea and severe and even fatal irritation with hemorrhage in an undetermined small number.

3. It probably causes greater injury to the liver than does the inhalation of ether in like amounts. The method fares with anaesthesia by inhalation certain drawbacks.

1. The contraindications are the same as those for general anaesthesia with ether being based on its pharmacological actions.

2. It must be employed in a room in which there is an open flame.

3. The patient must be kept under observation until consciousness returns because the tongue may

fall back into the throat and induce fatal asphyxia. This sometimes means prolonged observation by a trained anaesthetist or nurse.

4. It is not always sufficient for deep anaesthesia without the preliminary injection of morphine or the subsequent use of ether by inhalation. The contraindications of morphine must be considered.

It is certain that inhalation anaesthesia conducted with skill is safer than rectal anaesthesia followed as a routine procedure without judgment, care and skill. Until the necessary information is available the dose of ether should be graduated according to the weight of the patient. It seems probable that 2 gm of ether per kilogram of weight is the maximum that can be instilled into the rectum with safety following a hypodermic injection of from 1 to 2 gr of morphine sulphate, the dose of which is indicated by the weight of the patient.

Whether there is a danger of postoperative pneumonia following rectal or colonic anaesthesia than inhalation anaesthesia cannot be stated because of the lack of adequate statistical studies of the occurrence of such postoperative pneumonia.

The use of morphine during the first stage of labor and of ether or chloroform for the second stage appears to be the accepted procedure. Morphine sulphate in a dose of 1 gr for a woman of average size is usually without danger to the woman and associated with little danger to the child provided it is not used within less than four hours of delivery and the subsequent use of ether is made with due understanding of the action of morphine on the respiratory center. The use of morphine in doses exceeding an average of 1 gr for the woman of average size and the subsequent use of ether or chloroform involves danger to the child. The danger is so great that the dosage of morphine and ether should be calculated for the weight of the patient. For the woman of average size the maximum dose of ether used after a large dose of morphine during labor that does not exceed three hours without complication is about 10. Obviously the bowel should be emptied when labor is completed.

The question of the value of magnesium sulphate with morphine and ether cannot be answered at present. There is no satisfactory evidence that it increases the action of morphine or that of ether and animal experiments show that there is a summation of the effects. It is probable that a like summation of therapeutic effects occurs.

There is pressing need of systematic experimental studies of the drugs used during labor and of statistical studies showing accurately the possible analgesic action of each drug on women and the toxic effect on the child. S. M. L. KAHN, M.D.

PHYSICO-CHEMICAL METHODS IN SURGERY

ROENTGENOLOGY

Schaefer W. The Action of the Roentgen Rays in Bacterial Inflammations. An Experimental Pathologico-Histological and Clinical Study (Die Wirkung der Roentgenstrahlen bei bakteriellen Entzündungen eine experimentell pathologisch-histologische und klinische Studie) *Arch. f. klin. Chir.* 1917 cxlvi 394

The author applied roentgen rays locally to rabbits that had been infected by an abscess-forming strain of staphylococcus. After six hours no difference could be noted between the animals irradiated and those not irradiated. Later the first group showed an increase in the cellular inflammatory infiltrate—an increase in the inflammatory process that led to speedier breaking down of the abscess and more rapid healing. This occurred in eleven (45.8 per cent) of the twenty-four experiments. In seven the inflammation was less and the healing was retarded. In four no difference was noted between the irradiated and non-irradiated animals.

The effect of the roentgen rays is therefore in constant. It begins only when symptoms of inflammation are already present, the tissues then being more sensitive to the rays. From the pathologic-anatomical standpoint the manner in which the roentgen rays act upon inflammation is similar to the mode of action of other conservative methods of producing inflammation, such as poulticing and Bier's hyperæmia. The roentgen ray, however, has the important advantage of exact dosage and may be used for localized deep action. Other methods are not to be abandoned, but in each case it must be decided which method or combination of methods should be employed. SILVERS (Z)

MISCELLANEOUS

Granger F. B. The Use and Abuse of Physical Therapeutics. *J. Am. Med. Ass.* 1927 lxxix 194

Physical therapeutics may be of value in the following pathological conditions: non-union or delayed union of bone, low back injuries, adherent scars, bursitis, peripheral paralysis, neuritis, pneumonia, acute myositis, myositis ossificans, traumatic sprains, fractures, arthritis, surgical tuberculosis, tuberculous peritonitis, and various skin conditions.

It is an abuse of physical therapy to employ it except (1) after a careful physical and laboratory

examination, (2) as an adjunct to other standard and well recognized procedures, (3) in conjunction with other branches of medicine and surgery, (4) after a definite attempt to apply proper physiological effects to the predetermined pathological condition, and (5) when every care is taken not to use it instead of other proved methods that may be superior.

Technicians should be discouraged from running offices of their own, and only physicians trained in physical measures should be assigned to take charge of physical therapy departments.

In conclusion, Granger emphasizes the danger of the treatment habit. JOHN S. COULTER, M.D.

Sequeira J. H. and O'Donovan W. J. Light Treatment at the London Hospital. *Lancet* 1927 ccviii 1118

Since the Light Department of the London Hospital was opened on May 1, 1900, 663 cases of lupus vulgaris have been treated by the local application of concentrated light (Finsen treatment). Seventy per cent of the patients have been cured, 11 per cent still require occasional treatment, 16 per cent are to be classed as benefited, and 3 per cent were uninfluenced.

In July, 1922, the light bath treatment was introduced. This is given with the use of a 70 ampere arc tungsten paste carbon poles and various forms of mercury vapor lamps. Since the local treatment has been supplemented by application of the light to the general body surface, the incidence of cure in lupus vulgaris has been increased to 90 per cent. The authors draw the following conclusions:

1. The results are independent of the cutaneous reaction and the extent and degree of pigmentation.
2. Children are usually benefited more rapidly than adults.

3. The increase in the body weight is small. A rapid decline in the weight should lead to immediate suspension of the light bath treatment and a search for active pulmonary invasion.

4. Estimates of the temperature and pulse rates are of no particular value, but it is best not to treat pyrexial cases.

5. The slight leucocytosis observed in early cases has no clinical importance.

6. There is no doubt of the marked improvement in the general health and the mental outlook. This is independent of any change in the basal metabolism.

JOHN S. COULTER, M.D.

MISCELLANEOUS

CLINICAL ENTITIES—GENERAL PHYSIOLOGICAL CONDITIONS

Lion G Symmet lcal G ngrene of the E tre
mitles De eloping During an A ute Infectious
Disea e and Running tle Cou se of a Tran
s ent Complication (Ga gè ymèt q d
t ém té dé l ppé d l maladi
f t ag té ol tal f ç d ompl
t n p gè) B ll t ém S méd d l dp
d P q 7 l 45

The patient hose case s reported a woman
sixty eight years of age was recovering f om an
acute se e e attack of bronchopneumonia presum
ably of pneumococcic origin Du ring the cou se of a
professonal v sit L n observed the sudden appe
rance of cyanosis of the extremities and the t p of the
no e

The cyano disappea ed on pressure but in the
center of each cyanotic area there a a small ed
spot hich pe sted The pulps of the fingers were
espec ally fected but a few spots appeared also
on the d r al su face f the hand These spots
were very painful and s oll n

During the following six days the cyanosis
dimini h d in the al e dy aff cted parts but ap
pear d in ne reas each th a h m rhag c spot
in the center The finge s of the left hand both
great toe the chin both ea s and both cheeks
becam cyanotic

A new attack e ght days later invol ed espec ally
the hands and feet

Tv enty four days after the onset of the conditi n
there er superfic l gany enous area in the process
of sep ration on the tip of the nos both cheeks
the lobules of both ears and umerous parts of the
do sl and olar surfaces of the hand By the
end of a month the g ngen us areas had sep rated
from the nose and cheeks but it as almost six
months before the hand ere entirely clea

During second attack of bronchopneumonia
there as no retu n of the co ditio alth ough the
patient complained that she e perienced a ensation
of cold in the sca s hich remained from the previous
lesions

The c ndit on w s diffe entiated f om Raynaud s
disease by its sudden o set thout premonito y
syncope and asphyxa the rapid development of
the gangr and the subsequent course The
suddenness of its appearance suggested purpura
but the l ve and spleen were not enlarged and
except for the appa rance of clumping f the
blood platelets the blood examinati n was what
was to be e pected n a eve e infect on When
the patient s blood se um as mied with the blood
of other persons clumping of the th ombocytes

occurred but after the gangrene had cleared up it
no longer produced or showed clumping

MICHAEL L MASON M D

He tzle A E Chromoma of the F rea m 4
S g 9 8 l v vi 99

Hertzler reports three tumors of the fore rm v hich
he believes were derived from chromatophore cells
The fact that these tumors ere free from pigment
does not a gue against this origin because the
chromatophores are mai ly reparative in character
they absorb athe than form pigment

The tumors hich Hertzler calls chromomata
or chromata differ clin cally from the melanomata
in being more destructive locally and in metastasiz
ing more slowly and o ly by way of the lymphat cs
They resemble the tumors occurring in the foot
wh ch Hertzler described in 1914 They beg n as
painless subcutaneous nodules ha ing no connection
with the sk n They slowly destroy the skin and
miv inv lve al o the deeper structures They do
not appear to be amenable to a y sort of treatment

Histologically they are made up of small irregu
l rly a ranged spheroidal cells with deeply staining
nucle scattered thro ghout a connective tissue which
is rcb in capillaries The vessel n the stroma tend
to ha e thickened endothelial walls Altho gh the
general appearance is that of a react e pr cess
close scrutiny of the small cells led H rtzler to
conclude that these g owths are neoplast c Al eo
lar arrangement of th small cells may be present
in the o ginal tumo r the lymphat c metastases

Micn L MASON M D

Ullmann H J The Lead Treatment of Ca cer
S g G) & Ob t 9 8 l 9

Colloidal lead orthophosphate is much le s to x
to the organism than the colloidal metal or the other
salts Solutions of lead rthophosphate keep in
definitely at room temperature and appare tly do
not alter their toxicity with age

In the author s case of cancer a rout e e am na
t on of the urine and blood is made the kidney
funct on is estimated from the dye test and blood
smears are searched at intervals for st ppled cells
The solut on of colloidal lead phosphate is i jected
intravenously the amount vary ng with the weight
of the pat ent and the size of the tumor The average
dose is 80 mgm This is repeated eekly until
from 300 to 500 mgm have been given

The eye f lead in the t eatment of cancer holds
suficent p omise to war a t thorough invest ga
tion It is necessary in order to obtain the m xi
mum benefit to combine the r e tgen ray or
radium with lead inject o s

JOSEPH K NARAT M D

GENERAL BACTERIAL PROTOZOAN AND
PARASITIC INFECTIONS

Platou E S Schlutz F W and Collins L
Erysipelas A Clinical Study of the Treatment
of This Disease *Am J Dis Child* 1927 xxv
1030

The authors report results obtained in cases of erysipelas subjected to the roentgen ray treatment evolved by Rigler roentgenologist of the Minneapolis General Hospital. Over all areas the distance from the tube to the skin was 25.4 cm. A filter of 2 mm. of aluminum was used. The readings were 111 kv. (peak) corresponding approximately to a 7 in. spark gap between moderately blunt points and 5 ma. were used for five minutes over each area. This was considered a dosage sufficient to produce a mild erythema when the oblique radiation from each area was included. In the treatment of the scalp the duration of the irradiation was reduced to four minutes to avoid the production of permanent epilation.

Eighty cases were treated by roentgen ray irradiation alone thirty with Birkhaug's erysipelas antitoxin alone and ten with roentgen ray irradiation and antitoxin combined. There were thirty five control cases.

In the cases treated with the roentgen ray the temperature returned to normal in one and a half

days and the pain toxæmia and general malaise subsided in two days. In the control group the corresponding periods were three and four tenths days and eight days. Extension of the disease occurred in 21 per cent of the irradiated cases and 68 per cent of the control cases. The mortality was 6 per cent in the irradiated cases as compared with 23 per cent in the control cases although the former group contained twice as many infants under three years of age.

In the cases treated with erysipelas antitoxin the temperature returned to normal in two and two tenths days and the symptoms other than fever subsided in three and eight tenths days. In the control group the corresponding periods were three and three fourths days and eight days. Extension of the disease occurred in 46 per cent of the cases treated with antitoxin and in 68 per cent of the control cases. The mortality in the cases treated with antitoxin was only 6 per cent one fourth the mortality of the control group.

From these observations the conclusion is drawn that roentgen ray irradiation and the administration of antitoxin in adequate dosage intravenously intraperitoneally or intramuscularly are of definite value in the treatment of erysipelas. In the ten cases in which both methods were employed the prognosis was considered especially grave.

ROBERT M. GRIER M.D.

Catarrhal conjunctivitis E G LEAR Med J & Rec 1927 cxxvi 719

A case of primary tuberculosis of the conjunctiva J G LELONG and M DUSSELDORP Bol inst de clin quir 1927 iii 317

Squamous celled carcinoma of the limbus extending over the cornea Z SCHWARTZ Med J Australia 1927 Supp 15 463

A conjunctival drain of the anterior chamber: an operative technique used in absolute glaucoma H S GRADIR J Am M Ass 1927 lxxxix 2025 [259]

Some notes on sarcoma of the uveal tract P C DAVENPORT Brit J Ophth 1927 vi 609

Non-operative treatment of cataract with a repositon lens antigen treatment Z H ELLIS N York State J M 1927 xxvii 1296

The treatment of cataract with lens extract D D SANDERSON Nebraska State M J 1927 xii 463

Congenital cataract: a plea for its early surgical treatment L W FOX J Am M Ass 1927 lxxxix 2 49 [260]

Cataract extraction: the comparative results obtained by the combined simple and Knapp-Torok methods of procedure W R PARKER J Am M Ass 1927 lxxxix 2252 [269]

Loss of vitreous in cataract extraction E B DUNPHY J Am M Ass 1927 lxxxix 2254 [260]

Two safety measures in cataract extraction W S ATKINSON N York State J M 1927 xxvii 1349

Cataract extraction with peripheral iridectomy J TENNENT Lancet 1927 ccxiii 1174

The bundle suture through the superior rectus muscle in cataract extraction C KING J Med Cincinnati 1927 viii 49

Spontaneous hemorrhage occurring late after cataract operation L W FOX Am J Ophth 1927 x 35 94

A visual field H W REID J Med Cincinnati 1927 iii 490

The different types of defects of the field of vision H ROENNE J Am M Ass 1927 lxxxix 1860 [269]

Clinical uses of slit lamp microscopy in ophthalmology G WADDY Med J Australia 1927 ii 768

Photography of the eye ground J LUDJAN Rev de especialidades 1927 i 358 [260]

A photographic study of holes in the macula: congenital and associated changes V J BEDELL Am J Ophth 1927 x 35 850 [261]

Capillary stasis in cranial traumatism M T LESUEUR Pre m d Par 1927 x 242

Changes in the eye round in vascular diseases and related conditions: 187 cases of hyperthyroidism, diabetes, nephritis, hypertension and heart disease with special reference to retinal arteriosclerosis H O ALTOW Arch Int Med 1927 xl 757

Laceration of the retina C H CHOW Am J Ophth 1927 x 35 89

Some points in connection with detachment of the retina SIR W T LISTER Brit M J 1927 ii 11 7 [261]

The value of antiseptics in modern ophthalmic surgery SIR A LAWSON Brit M J 1927 ii 1 28 [261]

Some remarks on Lagange's surgical treatment of detachment of the retina J A VAN HEUVEN Brit J Ophth 1927 xi 593 [261]

Report of a series of cases of retinitis pigmentosa occurring in one family C DICKSON and L J C MITCHELL Med J Australia 1927 Supp 15 46

Thrombosis of the central retinal vein C A HOFFMANN J Med Cincinnati 1927 404

The etiology, diagnosis and prognosis of optic neuritis J V PATERSON Brit M J 1927 ii 863

The nomenclature of optic neuritis H ROENNE Brit M J 1927 ii 866

Optic neuritis as an aid to diagnosis A J BALLANTYNE Brit M J 1927 ii 869

Retrobulbar neuritis and infection of the accessory nasal sinuses K S OLIVER and S J CROWE Arch Otolaryngol 1927 vi 503 [261]

Arterial optic neuritis—with special reference to syphilis G N HOSFORD California & West Med 1927 xxvii 797

Ear

The otolaryngological phase of focal infection H W LYMAN Ann Otol Rhinol & Laryngol 1927 xxvii 901 [262]

Aural systemic infection R D OWEN Lancet 1927 cc iii 1390

Functional test of the ear G B McAULIFFE Med J & Rec 1927 cxxvi 656

Acoustics in hearing: a new theory of hearing A BOINAIN Arch Internat de Laryngol 1927 x 1 969

What is progressive middle ear deafness? D McKEVZIE J Laryngol & Otol 1927 xlii 801

A preliminary study of chronic middle ear deafness G SCOTT WILLIAMSON and E H RICHARDS J Laryngol & Otol 1927 xlii 793

Deafness—cure quackery and pseudomedicine A J CRAMP J Med Cincinnati 1927 iii 458

Arterial treatment of deafness F WODAK Laryngoscope 1927 x xxviii 894

An operation for the alleviation of deafness A NESFIELD Lancet 1927 cc iii 1338

The homeopathic treatment of chronic middle ear catarrh H J BELLOWES J Ophth Otol & Laryngol 1927 xli 406

Streptococcal hemolytic infection of the middle ear following tonsillar infection NEIL N Zealand M J 1927 xxvii 247

A case of Gadenigo's syndrome of traumatic origin G BILANCIONI Rassegna internaz di clin e terap 1927 vi 667

Report of two cases of Gadenigo's syndrome LEMAIRE and ALBIN Arch Internat de Laryngol 1927 xxviii 976

The use of posture in the treatment of acute otitis media J A W HETRICK J Am Inst Homeop 1927 xx 048

The clinical value of vestibular ocular nystagmus in affections of the peripheral labyrinth H BALDENWECK Arch Internat de Laryngol 1927 xxviii 897

Suppurative labyrinthitis with a report of cases G W MACKENZIE Ann Otol Rhinol & Laryngol 1927 xxxvi 909 [262]

Ménière's disease G W KUTSCHER JR South M & S 1927 l xxxix 876

The pathogenesis and surgical treatment of Ménière's vertigo H ABOLKER Presse m d I r 1927 xxiv 1412

The formation of a circumscissured abscess at the site of the saccus endolymphaticus J HOKNE J Laryngol & Otol 1927 xlii 84

The saccus endolymphaticus as a drain on the foramen in the same for the relief of vertigo G PORTMAN J Laryngol & Otol 1927 xlii 807

The relation of pregnancy to mastoid infections H A FLETCHER Ann Otol Rhinol & Laryngol 1927 xxvii 966

Infantile mastoiditis with gastro-intestinal symptoms H W LYMAN Arch Otolaryngol 1927 vi 56 [262]

Mastoiditis in infants H W LYMAN J Missouri State M Ass 1927 xxiv 541

Tonsillectomy in adult patients G C CATHCART
Practitioner 1927 cxix 349

A simple ligature applicator for the tonsillar vessels
SIR J DUNDAS GRANT Proc Roy Soc Med Lond
1927 xxi 99

Postoperative tonsillar hemorrhage due to the organisms
of Vincent report of five cases A P TIBBETS Laryngo-
scope 1927 xxxviii 872

Neck

A case of lateral cervical fistula E HUIZINGA Laryn-
goscope 1927 xxxviii 878

Tumor of the carotid body E F TRAUT Surg
Gynec & Obst 1927 xlv 829

A case of thyroglossal duct cyst G V HEREFEY
CSAKANYI Zentralbl f Chir 1927 liv 2631

Notes on basal metabolism I B basal metabolism
standards W H STONER J Lab & Clin Med 1927
xiii 265

Diseases of the thyroid C F ANDREWS Nebraska
State M J 1927 xii 449

Some differential points in thyroid diseases R O
LYDAY South M & S 19 7 lxxxix 867

A case of postinfectious hypothyroidism C E KIELY
J Med Cincinnati 1927 viii 492

Goiter—classification and management R O ROGERS
Virginia M Month 1927 liv 57

The diagnosis and treatment of goiter W T DIVER
New York State J M 92 xxxvii 1301

Childhood goiter in Derbyshire P H J TURTON
Lancet 9 7 cxxiii 110

The worldwide tension of endemic goiter L MAVER
Bruxelles med 1927 vii 1357

Some observations on the treatment of goiter C C
TATHAM Canadian M Ass J 1927 xvi 1503

The use of iodine in thyroid disease C G HEYD
Boston M & S J 1927 c xii 1075

The effect of hyperthyroidism upon diabetes mellitus
F A COLLIER and C B HIGGINS Ann Surg 1927
l 1 377

Hyperthyroidism and its relation to benign tumors of
the thyroid gland W F RIENHOFF JR South M J
1927 xx 901 [261]

The treatment of hyperthyroidism C A WATKINS
Indiana State M Ass 1927 xx 456

The injection of absolute alcohol in the treatment of
hyperthyroidism F A COLLIER and H B BARKER
Arch Surg 1927 xvi 918

Iodine therapy in hyperthyroidism A SOHLAND
W E OSTROLOV and O N MELAND California & West
Med 19 7 xxxvii 789

The pre-operative management of patients with hyper-
thyroidism A T BUNTS Surg Gynec & Obst 19 7
vii 832

Resection of toxic goiters after ligation F MERKE Beitr
z klin Chir 1927 cxi 407

Clinical evidence of thyrotoxic control after radium
therapy R F LOUCKS Am J Roentgenol 1927
viii 509

Intrathoracic goiter C C HIGGINS Arch Surg 1927
vii 893

The prolonged treatment of exophthalmic goiter with
iodine in increasing doses L DAUTREBANDE and A
LEMONT Bruxelles med 1927 viii 1634

The use of Lugol's solution in exophthalmic goiter J L
DeCOURCY Ann Surg 1927 lxxxvi 871

Exophthalmic goiter pathological change as a result
of the administration of iodine (Lugol's solution) W W
SAGER Arch Surg 19 7 878

Malignant tumors of the thyroid gland treated by oper-
ation radium and roentgen rays H H BOWING Am
J Roentgenol 1927 xviii 501

Clinical observations on anesthesia for goiter M B
KAST Anes and Anal 1927 vi 253

Thyroidectomy and factors influencing the mortality
L P ENGEL J Missouri State M Ass 1927 xvi 530

Regeneration of the thyroid gland and the prevention of
recurrent goiters J E ELSE J Am M Ass 1927
lxxxv 2 53 [264]

Heart block after goiter operations F SIMON Zent bl
f Chir 19 7 liv 2600 [265]

The relation of the oral articulation movements of
speech and of the extrinsic laryngeal musculature in
general to vocal cord function E L KENNON Ann
Otol Rhinol & Laryngol 19 7 xx 11184

A foreign body in the larynx M VLASTO Proc Roy
Soc Med Lond 1927 xxi 96

Fracture of the left cord due to a blow on the neck W
M MOLLISON Proc Roy Soc Med Lond 1927 xxi
293

The hoarseness of infants and an examination into its
causes T MATSUI Laryngoscope 1927 xxxvii 867

A laryngeal case shown in May and June 1927 F B
LAXTON Proc Roy Soc Med Lond 1927 xxi 99

Tuberculosis of the larynx W C WARREN JR South
M J 9 7 xx 916

Tuberculous laryngitis—its treatment with chaulmo-
oil C F SNAPP J Michigan State M Soc 1927 xxi
770

Early metastasis in a tumor of the vocal cords A E
HERTZLER Ann Otol Rhinol & Laryngol 19 7 xxxvi
1 78

Iodine carcinoma treated by diathermy with
complete disappearance of growth L LOWELL Proc Roy
Soc Med Lond 19 7 xxi 293

Laryngoscopy for intrinsic carcinoma of the larynx
four cases in medical men who are now in active practice
two and a quarter three four and a half and five and a
half years after operation SIR STC THOMSON Proc
Roy Soc Med Lond 19 7 xxi 289 [266]

Laryngectomy in cancer of the larynx L COLLEDGE
Lancet 1927 cxxii 1003 [266]

SURGERY OF THE NERVOUS SYSTEM

Brain and Its Coverings Cranial Nerves

Indirect injury of the brain treated by trephining on one
and one half years ago retrospectively diagnosis considered
atio S CREVY and LOUBAT J de med de Bordeaux
192 cii 619 [267]

Cisterna magna estimations in neurosurgery W
SHARPE and C A PETERSON Ann Surg 1927 lxxxvii
801

Ocular phenomena produced by basal lesions of the
frontal lobe W I LILLIE J Am M Ass 19 lxxxix
2090

Choked disk in intracranial lesions the mechanical
factor in its causation G W SWIFT North est Med
1927 xxi 59 [267]

A case of cerebromacular degeneration W I H
SHEDDEN and F J IONVTON Proc Roy Soc Med Lond
1927 xxi 226

- Spinal hypertension of mechanical origin A TZANCK and P RENAULT Bull et mém Soc méd d hôp de Par 1927 xliii 1441
- Intraspinal tension and deep venous pressure A TZANCK and P RENAULT Bull et mém Soc méd d hôp de Par 1927 xliii 1444
- The intraspinal treatment of neurosyphilis A V NÁGEFA Clin y lab 1927 viii 253

- The operative treatment of the gastric crises of tabes F MANDEL Deutscher Ztschr f Chir 1927 ccv 92
- The retention of urine in a spina bifida occulta J FRANÇOIS Rev d'orthop 1927 xxxiv 724
- Erythromelalgia secondary to arteriosclerosis D C HARE Proc Roy Soc Med Lond 1927 xvi 71
- Neuro end sarcoma D QUICK and M CUTLER Ann Surg 1927 lxxxvi 810

SURGERY OF THE CHEST

Chest Wall and Breast

- Supernumerary breast Brit M J 1927 ii 186
- Acute mammitis of lactation recovery after injections in the skin of antistaphylococci stock vaccine A BASSER Bull et mém Soc nat de chir 1927 liii 1415
- The treatment of puerperal mastitis at the University Gynecological Clinic at Heidelberg VON OETTINGEN Zentralbl f Gynaek 1927 li 2543
- Mammary tuberculosis report of a case in the male A M DICKINSON Am J Surg 1927 iii 595
- Adenofibroma and fibro adenoma of the female breast J McFARLAND Surg Gynec & Obst 1927 xlv 729 [272]
- An unusually large fibro adenoma of the breast in twelve year old girl T B SELLERS New Orleans M & S J 1927 lxxx 389
- A contribution on the clinical study of an interesting variety of epithelioma very similar to Paget's disease M PER and R BRAUDE Bruxelles méd 1927 viii 1
- Parasternal invasion of the thorax in breast cancer and its suppression by the use of radium tubes as an operative precaution W S HANDLEY Surg Gynec & Obst 1927 xlv 721 [272]
- Late results of operation for carcinoma of the breast Medical Society of London Brit M J 1927 ii 832 [272]

Trachea Lungs and Pleura

- A case of foreign body in the air passages in a girl of ten years BRUNDEL J de méd de Bordeaux 1927 ci 818
- Tuberculosis of the upper respiratory tract G B WOOD Arch Otolaryngol 1927 vi 573
- The value of oxygen following broncho copy in children II J MOERSCH and W M BOOTHBY Arch Otolaryngol 1927 vi 542 [273]
- Pneumography by iodolol its present uses and limitations D C SNEYD and LER A SCRALL Ann Otol Rhinol & Laryngol 1927 xx vi 1134
- Intratracheal injection of iodized oil experimental studies B M FRIED and L R WHITAKER Arch Int Med 1927 li 6
- Suffocating capillary bronchitis in an adult ROCHE and E FROMMEL Bull et mém Soc méd d hôp de Par 1927 xliii 135
- An anatomical and clinical study of a case of chronic pneumonia due to Friedländer's bacillus M BRULÉ I IFUGEVIN and P FOULOV Bull et mém Soc nat de chir 1927 liii 889
- Pulmonary asbestosis W E COOKE Brit M J 1927 ii 104
- The histology of pulmonary asbestosis S McDONALD Brit M J 1927 ii 1025
- Clinical aspects of pulmonary asbestosis SIR T OLIVER Brit M J 1927 ii 1026
- Surgical treatment of pulmonary tuberculosis its indications and results G LOY Presse méd Par 1927 xxxiv 1441

- Nodular sclerosis of the lung of miliary type roentgenological picture MACAIGNE and NICAUD Bull et mém Soc méd d hôp de Par 1927 xliii 1563
- Pulmonary abscess—postoperative L F MORRISON California & West Med 1927 xxvii 792 [273]
- Postural treatment of lung suppuration a new postural fame the jack knife position and abdominodiaphragmatic pulmonary compression with a review of the literature M J MANDELBAUM Arch Int Med 1927 vi 840
- The scope of collapse therapy (artificial pneumothorax and thoracoplasty) in the treatment of pulmonary tuberculosis in India I T PATEL Indian M Gaz 1927 lxxvi 681
- An objection to oleothorax septicæmia of pleural origin R BURNARD Bull et mém Soc méd d hôp de Par 1927 xliii 1624
- Artificial pneumothorax in the child and in the adult P AMEUILLE BLANCHY and M TAQUET Bull et mém Soc méd d hôp de Par 1927 xliii 627
- Artificial pneumothorax and tuberculous laryngitis P AMEUILLE and J TARNEAUD Bull et mém Soc méd d hôp de Par 1927 xliii 1339
- The late results of artificial pneumothorax A PISSAVY Bull et mém Soc méd d hôp de Par 1927 xliii 1508
- Pulmonary cysts H J LENNIGER Nebraska State M J 1927 xii 447
- Fibroma of the bronchus J S T BURRELL and R R TRAIL Lancet 1927 ccxiii 180
- The roentgen diagnosis of malignant neoplasms of the lung J S HIRSCH Radiology 1927 ix 470 [273]
- Primary pulmonary cancer of hæmorrhagic form P MERKLEV and M WOLF Bull et mém Soc méd d hôp de Par 1927 xliii 1613
- A case of the chronic form of pulmonary gangrene DAKLEGUY and VIALARD Bull et mém Soc méd d hôp de Par 1927 xliii 490
- Report of two cases of postcancerous pulmonary gangrene JFON KLEINBERG C GRANDCLAUDE and R CATTAN Bull et mém Soc méd d hôp de Par 1927 xliii 149
- Acute suppurative pleurisy with secondary pneumococcus peritonitis P A DIVENE Am J Surg 1927 vi 612
- Gangrenous pleurisy in a bronchiectatic patient empyema operation seotherapy rapid recovery H BLANC Bull et mém Soc d chirurgiens de Par 1927 xxi 99
- Isolating tuberculous empyema and tuberculous rib W M FELDMAN Proc Roy Soc Med Lond 1927 xi 224

Heart and Pericardium

- A case of wound of the heart M WALLERUS Duodecim 1925 xl 272
- Abdominal symptoms of heart disease with special reference to the rôle of auricular fibrillation A M WEDD Surg Gynec & Obst 1927 xlv 790

A case of generalized suppurative peritonitis treated by a continuous intraperitoneal current of oxygen M ROUSSEL Bruxelles méd 1927 viii 14

Surgery of the peritoneum W KOERTE 1927 Stuttgart Enke

Chronic epiploitis based on five personal cases DUPUY DEFRENNELLE Paris chir 1927 xix 187

Extensive lymph cyst formation in the mesentery and mesocolon W HOFFMEISTER Med Klin 19 7 xviii 1039

A cyst of the mesosigmoid mistaken for a cyst of the ovary B ELKIN Bol Soc d obst y gynec de Buenos Aires 19 7 vi 36

Retractile mesenteritis a clinical case experimental results pathogenetic and clinical considerations V JURA Polichin Rome 1927 xxvii sez chir 535

Melanosarcoma of the posterior cavity of the omentum SCHOCAERT Bull Soc d obst et de gynec de Lar 1927 xvi 688

A modification of the Talma omentopexy L KIRCHMAYR Zentralbl f Chir 19 7 liv 2120

Gastro Intestinal Tract

An open safety pin in the stomach and then point downward in the oesophagus removal S IGLAUER Ann Otol Rhinol & Laryngol 1927 xxvii 1264

The action of certain substances upon the tonus of the muscle fibers of the stomach under the control of clinical gastrotonometry and radiology V LAPICIERRE Larresse méd Par 1927 xxv 1490

Bilocal stomach posterior gastroenterostomy syncope heat massage functional result after eleven years LAVENANT Bull et mém Soc d chirurgiens de Par 1927 vii 647

Accidental diaphragmatic hernia of the stomach BALGARTNER Bull et mém Soc nat de ch 19 7 liv 1205

Essential perigastritis and penduodentitis G PUPINI Ann ital di chir 1927 vi 869

Cardiospasm C CLARK Canadian M Ass J 1927 x 1445

Cardiospasm H B TAWSE Proc Roy Soc Med Lond 1927 xxi 295

A case of achalasia of the cardia after treatment by Hurst's mercury tubes H TILLEY Proc Roy Soc Med Lond 1927 xxi 293

The surgical treatment of gastric tetany DE HARVEN A ch franco belges de chir 1927 xxi 114

Myocytic gastritis H A SINGER Arch Int Med 1927 li 873

The experimental production of gastroduodenal ulcers by a low sham feeding I S SILBERMANN Zentralbl f Chir 92 li 385

Peptic ulcer of the stomach at the mouth of an anastomotic opening made with a button GELAS Lyon chir 1927 xiv 549

Recurrences of ulcer of the stomach G AIGROT and A BASSER Bull et mém Soc nat de ch 1927 liv 1135

Perforations of gastric and duodenal ulcers MOYANN Bull et mém Soc d chirurgiens de Par 1927 xix 66

Perforations of gastroduodenal ulcers MORNARD Bull et mém Soc d chirurgiens de Par 1927 xix 682

Perforation of a gastric ulcer into the peritoneal space DEMOOR J de chir et Ann Soc belge de chir 1927 p 162

Subcutaneous emphysema as a sign of perforation J VIGYAZZ Zentralbl f Chir 1927 liv 301

Autohemotherapy in the treatment of gastric ulcer CERF Bruxelles méd 1927 viii 7

Medical cure under radiological control of craterous ulcers of the stomach F MOUTIER and P PORCHER Larresse méd Par 1927 xxv 1 91 [276]

The value of pyloric exclusion and the treatment of stomachs poorly drained by gastroenterostomy GELAS Lyon chir 1927 xxiv 549

Coeliac surgery following unsuccessful operations for ulcer O NORDMANN Zentralbl f Chir 1927 liv 1893 [277]

A neoplasm of the stomach simulating intractable vomiting of pregnancy TIRIBOCHI Rev méd d Uruguay 1927 xxx 573

Myocytic tumor of the stomach G LIOV Bull et mém Soc méd d hop de Par 1927 xliii 1519

Cancer of the stomach Lancet 1927 ccviii 1394

Studies of the nitrogenous compounds of the gastric juice with reference to the early diagnosis of cancer of the stomach M JANOV Presse méd Par 19 7 xxv 1370

Gastric bleeding FRIEDEMANN Zentralbl f Chir 1927 li 2150

Acute hemorrhages of the stomach and duodenum operative indications and surgical treatment J JOVCHERES Larresse méd Par 1927 xxv 20

Gastric laceration and gall bladder drainage S R SCHULTZ Med Times 9 7 liv 283

A new loop factor for use in gastro intestinal anastomosis W H LANG Canadian M Ass J 9 7 xvii 15 6

The fate and clinical manifestations of silk thread in the wall of gastro intestinal fistulae F STARLINGER Zentralbl f Chir 19 7 liv 2562

Seromuscular silk sutures as the source of disturbances following gastroenterostomy E SCHERR Zentralbl f Chir 1927 liv 2115

Vomiting after operations on the stomach A R SHORT Brit M J 1927 vi 1135 [278]

Non metallic perforating intestinal foreign bodies L GINZBURG and J J BELLER Ann Surg 1927 lxxvii 928 [279]

Two cases of postoperative volvulus of the intestine one early one late V DELAGENIERE and ROBINEAU Bull et mém Soc nat de chir 1927 liii 1191

Pneumatic rupture of the intestine with roentgen ray studies following recovery R B MORRIS Am J Roentgenol 1927 x iii 560

The effect of sunshine on the acidity of the intestinal tract of rachitic rats F T TISDALL and H W PRICE Bull Johns Hopkins Hosp B lt 1927 xli 432

Celiac disease (chronic intestinal indigestion) etiology prognosis and standardization of treatment L W SAUER Am J Dis Child 1927 xxiv 934

Intestinal infection and its treatment by vaccination by the route BECART Bruxelles méd 1927 viii 228

Acute intestinal obstruction G A MOORE Rhode Island M J 1927 x 173

A case of intestinal obstruction M UMAR Indian M Gaz 9 7 liv 00

Intestinal obstruction in the surgical division of the cantonal hospital at Yverdon in the period from 1899 to 1924 H KERN Schweiz med Wchenschr 1927 liii 924

Intestinal obstruction due to stricture following herniotomy for strangulated hernia E H LISING Am J Surg 1927 liii 552

A case of intestinal obstruction after high caesarean section BALARD and DENIS Bull Soc d obst et de gynec de Lar 1927 xvi 668

- Concurrent appendicitis and Meckel's diverticulitis
A CUMMING Lancet 192 cxxiii 1392
- Acute perforating appendicitis complicated by hernia of the small intestine strangulated in an aperture of the mesentery peritonitis operation recovery A CATERINA Polichin Rome 1927 xxvix sez chir 519
- Suppurative appendicitis paralytic ileus enterostomy recovery P J LIPSETT Am J Surg 1927 iii 611
- Appendicitis with thickening of the ileum and cecum drainage postoperative bronchopneumonia and empyema abdominal wound suppuration and fecal fistula persistent massive infiltration of the cecum and ascending colon resection recovery C W CUTLER JR Am J Surg 1927 iii 609
- Congrenous appendicitis diffuse purulent peritonitis secondary abscess double fecal fistula with spontaneous closure hemorrhage into the abscess cavity and bowel recovery C W CUTLER JR Am J Surg 1927 iii 609
- Intestinal obstruction in the course of acute appendicitis J PERIT Bull et mém Soc nat de chir 1927 liii 1053
- Intestinal occlusion accompanying gangrenous appendicitis LEO Bull et mém Soc de chirurgie de Par 1927 xix 7 8
- A gangrenous appendix in a strangulated hernial sac A SEASTON Brit M J 1927 ii 225
- Ray findings in patients with chronic appendicitis W M SHERIDAN Radiol Rev & Chicag Med Rec 1927 xlii 451
- Postoperative complications of suppurative appendicitis C W CUTLER JR Am J Surg 1927 iii 602 [285]
- The treatment of post-appendicitis peritoneal infection MELCHIOR Zentralbl f Chir 1927 lii 7 8
- Recurrent acute appendicitis after partial appendectomy C W CUTLER JR Am J Surg 1927 iii 60
- Intestinal obstruction after removal of the appendix medial laparotomy anastomosis recovery AUTEVAGE and OKINAKA Bull et mém Soc nat de chir 1927 lii 35
- Intestinal obstruction after appendectomy tetanus of viscera origin VERGOS and J OKINAKA Bull et mém Soc nat de chir 1927 liii 1354
- A case of perisigmoiditis with intestinal lamblasis and its treatment with yatrafen P P LUCHINI and J PEREZ DE NUCCI Bol inst de clin quir 1927 iii 24
- Emphysema and dragging through of the intestine in injuries of the sigmoid flexure DRESCHLER Zentralbl f Chir 1927 li 31
- A tear of the sigmoid flexure and rupture of the small bowel STOEHR Zentralbl f Chir 1927 lii 2527
- A double simple ulcer of the sigmoid flexure resection of the sigmoid in two stages recovery A CHARRIER and A BRÉCHOT Bull et mém Soc nat de chir 1927 liii 35
- Rectal examinations W A FANSLER Wisconsin M J 1927 xvi 614
- My method of rectoscopy A GHEDINI Arch ital di chir 1927 xi 137 [286]
- Thermometer lost in the rectum F H CLARK Arch Pediatr 1927 xli 84
- Influence of ectal disease upon the general health C J DRUCK Med Age and Hygiene Apr 1927 xlii 348
- Cancer of the rectum H W BACHMAN Virginia M Month 1927 lii 552
- Cancer of the pelvic colon and rectum P C COFFEY Surg Clin N Am 1927 vii 25 [286]
- The pathogenesis of squamous cell carcinoma of the paranasal recti S A BROFELDT Acta Societatis Medicarum Duodecim 1927 viii 1
- Adenocarcinoma of the rectum J OICQ J de chir et Ann Soc belge de chir 1927 p 176
- The treatment of cancer of the rectum with radium by open operation SIR C GORDON WATSON Proc Roy Soc Med Lond 1927 vii 309 [286]
- Colostomy and posterior resection for carcinoma of the rectum T W RANKIN J Am M Ass 1927 lxxvix 961
- ### Liver Gall Bladder Pancreas and Spleen
- Direct observation of the circulation in the living liver J M McQUEEN Brit M J 1927 ii 1137 [287]
- The functions of the liver and tests of their efficacy A M SNELL and L G ROWNTREE Ohio State M J 1927 xxvix 9 9
- The clinical value of liver function tests H J ISAACS Illinois M J 1927 lii 490
- Sympathectomy of the hepatic artery and its effect on wound healing and on the biliary and glycogenic function of the liver P LEONE Arch ital di chir 1927 xviii 346 [287]
- The specific dynamic action of albumin in the normal and pathological individual A new method of examination of the protein function of the liver P MERRILL and J GUILLAUME Presse méd Pa 1927 xvi 1249
- Clinical aspects of jaundice C S McICAR and W T FITTS J Am M Ass 1927 lxxvix 018
- The icterus index in children P TAYLOR Am J Dis Child 1927 xxvix 989
- Obstructive jaundice A R SHORT Lancet 1927 cxxvii 735
- Experimental obstructive jaundice I The growth factor of defective calcification W C BUCHHEIMER and R KERN Arch Int Med 1927 xl 000 [287]
- The differential diagnosis of hemolytic jaundice J B ELLIOTT and F M JOHNS New Orleans M & S J 1927 lxxx 375
- Hepatology M EINHORN Presse méd Pa 1927 xxvix 1 91
- Gross enlargement of the liver T M LING Proc Roy Soc Med Lond 1927 xi 226
- Primary multiple tuberculous abscesses of the liver A S MAXIMOWITSCH Zentralbl f Chir 1927 lii 2 9
- A case of massive tuberculous abscess of the liver W P H SNEEDON Lancet 1927 cxxvii 1343
- A case of tertiary syphilis of the liver with cystic dilatation of the bile passages BRULÉ and R BOULIN Bull et mém Soc méd d hôp de Par 1927 xliii 1366
- Gumma of the liver with splenomegaly in a child D FIRTH Proc Roy Soc Med Lond 1927 xxi 3
- A sustained non-parasitic cyst of the liver T G ORR and J A THURSTON Ann Surg 1927 lxxvix 901
- Hydatid calcification (our investigations relative to its etiology and pathology) C P WALDORF and R A TRELLES Bol inst de clin quir 1927 iii 336
- Two cases of amoebic abscess of the liver treated by hepatectomy and suture without drainage COSTANTINI Bull et mém Soc nat de chir 1927 liii 1085
- Suture without drainage of amoebic abscess of the liver BRESSOT Bull et mém Soc de chirurgie de Par 1927 xlii 620
- Parichir 1927 xlii 197
- The pathophysiology of the gall bladder the importance of its study from a clinical and therapeutic viewpoint J C GULAN Rev Assoc méd argent 1927 li 644
- On the clinical behavior of the normal and the diseased gall bladder V G BURDEN Am J Surg 1927 iii 556 [288]
- Cholecystography R G VAN NUYEN California & West Med 1927 xxvii 777

GYNECOLOGY

Uterus

Uterine malformation and congenital scoliosis. A I PAVLOVSKY. Bol Soc de obst y gynec de Buenos Aires 1927 vi 416

Uterus didelphys. C G LEVISON and M WOLFSON. Am J Obst & Gynec 1927 xiv 748

The hormone factors in uterine contractility. BROUHA and H SIMONNET. Bull Soc d obst et de gynec de Par 1927 xvi 687

End results of procidentia operations. F A PEMBERTON. N York State J M 1927 xviii 1306

Some remarks upon uterine retroversion. LEYENEN. Gynecologie 1927 xxvi 587

The injection of the uterus and fallopian tubes with iodized oil as an aid in diagnosis. E H GREENE and I C PENDERGRASS. J Med Ass Georgia 1927 xvi 40

The roentgenological examination of the uterus and tubes by the injection of iodized oil. P MOCQUOR and R BUREAU. Presse med Par 1927 xv v 525

The dangers of uterosalpingography. W ODENTHAL. Zentralbl f Gynaek 1927 li 1524 [290]

A new uterine endoscope combined with a curette. A FREUND. Ztschr f Geburtsh u Gynaek 1927 xci 663

Tertiary syphilis of the uterus and adnexa. E PROVIGELLI. Clin obstet 1927 xxix 558 [290]

A primary disease of the portio uteri. H HINSELMANN. Monatsschr f Geburtsh u Gynaek 1927 lxxvii 10

A conservative treatment for chronic endocervicitis. E M BLAIR. Canadian M Ass J 1927 xviii 1480

The medical treatment of cervical metritis. E DUBREUILH. J de med de Bordeaux 1927 civ 725

Uterine hemorrhage. G THOMPSON. J South Carol na M Ass 1927 xviii 541

A case of bilateral lutein cysts complicating uterine fibromyomata. W SHAW. J Obst & Gynec Brit Emp 1927 xxxiv 772

A case of myoma of the portio uteri. F VON ZUR MUEHLEN. Zentralbl f Gynaek 1927 li 2483

Retrocervical and intraligamentous fibroids and Pestaazza's method in their operative treatment. COSSOLARI. Arch d ostet e gynec 1927 xxiv 441

Red myomata. E F MANSON and D COLLINS. Bol Soc de obst y gynec de Buenos Aires 1927 vi 3 397

A degenerating fibroma in a null para of seventy-nine years. SCHOCKAERT. Bull Soc d obst et de gynec de Par 1927 xvi 690

Gas gangrene of the uterus. H KAMNIKER. Zentralbl f Gynaek 1927 li 2341

Two cases of malignant chorio epithelioma. SCHOCKAERT. Bull Soc d obst et de gynec de Par 1927 xvi 692

An epithelioma of the cervix associated with a carcinoma of the ovary. SUSSEX and CAYLOR. Ann Surg 1927 lxxvi 945

The association of carcinoma and tuberculosis in the uterus. F MATZDORFF. Zentralbl f Gynaek 1927 li 2318

Tests of the virulence of streptococci in the treatment of cancer of the uterus. T CUIZZA. Riv ital di gynec 1927 vi 185 [290]

The radium emanation treatment of cervical cancer. J MUR. Med J & Rec 1927 ccxvi 725

Inoperable cancer of the uterine cervix: radium therapy, local recurrences, metastases in both female. L MICHON and K PROUST. Bull et mem Soc nat de chir 1927 lu 1113

Five year end results of radium treatment in carcinoma of the cervix uteri. L A POMEROY. Am J Poentgenol 1927 xviii 514 [291]

Cancer of the cervix of the uterus: its surgical treatment. HALLER. Bull et mem Soc d chir de Par 1927 xiv 717

Vaginal hysterectomy. PETIT DE LA VILLÉON and R PETIT. Bull et mem Soc d chir de Par 1927 xiv 633

Vaginal hysterectomy: technique and indications in consecutive cases without complications. R PETIT I DELAUNAY, THÉVENARD, DARTIGUES, V PALCHET, RUI LAND and HALLER. Bull et mem Soc d chir de Par 1927 xiv 516 517

End results of the vaginal hysterectomy and the Watkins Weismann interposition operation in procidentia. F M DOUGLASS. Ohio State M J 1927 xiii 983

Discussion on fundus hysterectomy. VILLARD and TIXIER. Lyon chir 1927 xiv 591

Discussion on fundus hysterectomy. P ROCHET. Lyon chir 1927 xxi 615

A rapid and practical method of peptonization in subtotal hysterectomy. F DELAUX. Presse med Par 1927 xv v 530

A point of technique in subtotal hysterectomies with adnexitis. GUYOT and GURFIN. Bull Soc d obst et de gynec de Par 1927 xvi 64

Adnexal and Peritubal Conditions

The anatomical significance of the uterine ligament. CONDAMIN. Lyon chir 1927 xxiv 593

Rhythmic contractions of the peritubal movement in the intact human fallopian tube as determined by peritubal gas insufflation and the kymograph. F C RUBIN. Am J Obst & Gynec 1927 xiv 57 [291]

Experimental studies on the pharmacological influence of the tubal musculature with regard to the question of the mechanism of migration of the ovum. F KOK. Zentralbl f Gynaek 1927 l 2650

Tubal anastomosis in the treatment of the patency of the fallopian tubes. P M MURRAY. J Nat M Ass 1927 xxi 157

A new apparatus for tubal insufflation. S OHNO. Zentralbl f Gynaek 1927 li 2750

Adnexal torsion with hemorrhagic peritoneal inundation in a child of ten years. J FIOLE. Bull et mem Soc nat de chir 1927 lu 1 38

The etiology of inflammation of the adnexa. E GROSS. Muenchen med Wchnschr 1927 lxxvi 31

Histological studies of salpingitis isthmica nodosa. K KUGE. Mitt ueber allg Path u path Anat 1927 i

The combined action of diluted salt water and concentrated salt waters in chronic salpingitis. L M PIERRE. Rev franç de gynec et obst 1927 xvii 570

Fundus hysterectomy in the treatment of chronic salpingitis. P ROCHET. Lyon chir 1927 xiv 563

Fundus hysterectomy in the treatment of chronic salpingitis. P ROCHET. Lyon chir 1927 xiv 587

Studies of the ovary. O FLOESSNER. Ztschr f Biol 1927 lxxvi 269

Supernumerary ovary and its origin. T KELLER. Gynecologie 1927 xxvi 577

The influence of ovariectomy on the sugar excretion. S KAWASUMI. J of Biochem 1927 vi 371

The ovary in osteomalacia. J R FRASER. Am J Obst & Gynec 1927 xiv 697 [292]

Recurrent hemorrhages following roentgen castration
Also a contribution on granuloma cell tumors H C
SCHEYER Zentralbl f Gynaek 1927 li 523
Is menstrual bleeding necessary for the health of the
woman? R KOEHLER Zentralbl f Gynaek 1927 li
1707
Some rare forms of amenorrhoea LENZI Arch di ostet
e ginec 1927 x. xiv 471

Pelvic inflammation L E BURCH J Am M Ass
1928 xc 166
A case of tumor of the pelvis J MACK Bull et mém
Soc d chir de Par 1927 xiv 584
Gynecological surgical technique M M FABIÃO Folha
med 1927 viii 243
Pelvic vaginal drainage in gynecology J S JUIFA Ars
med 1927 iii 329

OBSTETRICS

Pregnancy and Its Complications

The diagnostic value of the course of the sacro uterine
ligaments A OSTRIL Zentralbl f Gynaek 1927 li
2458

The intradermal salt tests in pregnant women R
HORNUNG Zentralbl f Gynaek 1927 li 2723

Changes in the cervical portion of the human uterus
during pregnancy STEVE Anat Anz 1927 lxii 51

Normal and abnormal duration of pregnancy F BIELEK
Casop lek cesk 1927 lxvi 1533 1570 1614 1630

The termination of ovulation and the determination
of the age of young human embryos O GROSSER
Monatsschr f Geburtsh u Gynaek 1927 lxxvii 1

Studies of the ovarian hormone in the blood of pregnant
and non pregnant women E FELS Klin Wchnschr
1927 vi 1806

The influence of pregnancy upon the calcium content of
the blood G ICHOK Presse méd Par 1927 xxv 1539

X ray pelvimetry—a simplified technique H THOMAS
Surg Gynec & Obst 1927 lv 87

The diagnosis of contracted pelvis J KOERNER
Zentralbl f Gynaek 1927 li 2469

The rectal, vaginal and abdominal examination during
pregnancy and labor P B BLAND Med Times 1927 lv
90

The six most important conditions of pregnancy J R
VANN South M & S 1927 lxx ix 861

Changes in the hypophysis during pregnancy and their
effect upon the field of vision J URBANEK Wien klin
Wchnschr 1927 xl 1195

The association of multiple pregnancies with diabetes of
suggested pituitary origin R D LAWRENCE Proc Roy
Soc Med Lond 1927 xxi 243

Pregnancy with mitral stenosis L B PHILLIPS Brit
M J 1927 ii 1029

The cor kyphoscolioticum during gestation P KLEIN
Arch f Gynaek 1927 cxxx 653

Fetal cardiac arrhythmias J RIHL and E WEINZIERL
Arch f Gynaek 1927 c xx 636

Gonorrhoea and prenatal hygiene A CAVALCANTI
Folha med 1927 viii 240

Pregnancy and thermal cures P MACREZ Rev franç
de gynéc et d obst 1927 xxv 566

The Wassermann reaction and the period of gestation
E POECK Zentralbl f Gynaek 1927 li 2547

Atypical erysipelas and pregnancy H SIEGMUND
Zentralbl f Gynaek 1927 li 2787

Report of an unusual case of rupture of the uterus during
pregnancy J C HANSON Boston M & S J 1927 cxcvii
127

Some cases of perforation of the uterus A NORDIO
Riv ital di ginec 1927 vi 333 [294]

The quick and the dead B B GROVER Med Herald
& Physiotherap 1927 xlii 337

Exfoliation of the uterine musculature during pregnancy
C TERRUHN Arch f Gynaek 1927 cxxx 476

Necrobiosis of uterine fibromyomata during pregnancy
F T LASTRA and J BAZÁN Bol Soc de obst y ginec de
Buenos Aires 1927 vi 407

Spinal tuberculosis and pregnancy E KOENIG and L
POECK Zentralbl f Gynaek 1927 li 1427

Appendicitis complicating pregnancy A P HEINCKE
Med Herald & Physiotherap 1927 xlii 340 Med Times
1927 lv 278

The treatment of perforating appendicitis during the
advanced stages of pregnancy F MICHEL Zentralbl f
Gynaek 1927 li 1477

Acute cholecystitis and pregnancy of four and one half
months A M BREA Bol Soc de obst y ginec de Buenos
Aires 1927 vi 44

Extra uterine pregnancy F M SANGER J Oklahoma
State M Ass 1927 xv 333

Ectopic pregnancy W A FRASER J Am Inst Home
op 1927 xv 1072

The clinical features of ectopic pregnancy D DOUGAL
Brit M J 1927 ii 1074

The blood bilirubin in ectopic pregnancy E A HORO
witz and T I KUTTNER Am J Obst & Gynec 1927
xiv 731 [294]

Acetonuria in extra uterine pregnancy O PRITZ and
J LICHTMAN Wien klin Wchnschr 1927 xl 1072

Interstitial or angular pregnancy? Exploratory lapa
rotomy diagnostic error revealed by the histological study
KREIS Bull Soc d obst et de gynéc de Par 1927 xvi
683

The causes of tubal pregnancy O PRITZ Zentralbl f
Gynaek 1927 li 1620

The pathogenesis and treatment of tubal pregnancy
CORRE Lyon chir 1927 xxiv 557

Is tubal pregnancy recognizable before rupture? L O
MILLER J Nat M Ass 1927 xix 153

Repeated extra uterine pregnancy on the left side E
BIERENDEMPFEL FLEICK Zentralbl f Gynaek 1927 li
1502 [294]

Repeated pregnancy in the same tube two new cases
R HASSELBLATT Acta obst et gynec. Scand 1927 vi
211 [294]

Ovarian pregnancy I F STEIN and M L LEVENTHAL
Surg Gynec & Obst 1927 xlv 798

Ovarian pregnancy with hydatidiform degeneration
A D FRASER and R S S STRATHAM J Obst & Gynec
Brit Emp 1927 cxcvii 788

Primary abdominal pregnancy J P MAXWELL and J
EASTMAN and H SMETANA Surg Gynec & Obst 1927
xlv 802

Abdominal pregnancy at twelve months JEANVENY
BOYVIN FAREAU and BAUVALLET Bull Soc d obst et
de gynéc de Par 1927 xvi 664

Abdominal pregnancy at term with dead child R
SCHOKAERT Bru elles méd 1927 viii 238

The action of pituitrin and adrenalin on the vessels of
the placenta as shown by perfusion J KOSAKAE Japan
J Obst & Gynec 1927 x 2

Partial symphysiotomy F ZÁRATE Bol Soc de obst y gynec de Buenos Aires 1927 vi 434

Partial symphysiotomy as compared with cesarean section in contracted pelvis twenty cases of partial symphysiotomy H ZÁRATE Bull Soc d obst et de gynec de Par 1927 xvi 436 [297]

Subcutaneous symphysiotomy in a malarial patient W ALVAREZ Bol inst de clin quir 1927 iii 804

Spontaneous rupture of the uterus C DOERFFER Monatschr f Geburtsh u Gynaek 1927 l vi 84

Incomplete ruptures of the uterus II BAUMI Monatschr f Geburtsh u Gynaek 1927 l viii 93

The sitting posture during the third stage of labor (placental period) W REIFRICH Muenchen med Wchnsch 1927 lxiv 1457

A case of placental incarceration from hyperretract on SCORDALAKIS Bull Soc d obst et de gynec de Par 1927 vi 627

Our experiences with manual exploration of the uterus M KASPAR Muenchen med Wchnsch 1927 lx iv 1417

Cases of prolapse of the cord LAFFONT HOUEL and JAHIER Bull Soc d obst et de gynec de Pa 1927 vi 642

Hysterectomy en ass for gangrenous metritis of the cervix at end of pregnancy with a living fetus ANDERONIAS and LACOUTURE Bull Soc d obst et de gynec de Par 1927 x i 646

An ethical consideration of the indications for cesarean section G FITZPATRICK Illois M J 1927 li 458

An analysis of the maternal and fetal deaths in a series of 29 cesarean sections H E MILLER Am J Obst & Gynec 1927 xiv 773

Spinal anesthesia in the cesarean operation S ODA OESCO Rev f anq de gynec et d obst 1927 xvii 506

Early cesarean section W ZANGMEISTER Monatschr f Geburtsh u Gynaek 1927 lxxv 100

Low cesarean section by the extraperitoneal route following rupture of the membranes with infection I CRIMMALL Bull Soc d obst et de gynec de Par 1927 vii 494

Extraperitoneal cesarean section with uterine parietal suture E ZÁRATE Rev franç de gynec et d obst 1927 xi i 587

A large pedicled retroplacental polyp discovered in the course of a suprasymphysal cesarean section CHOMÉ and LAFFONT Bull Soc d obst et de gynec de Par 1927 xvi 640

Puerperium and Its Complications

Serological diagnosis of the puerperium and legal medicine C LIPPERA Policlin Rome 1927 xxvii sez prat 1635

The physiology of the puerperium L KRAUL Wien klin Wchnchr 1927 xl 1043 1081

Postnatal maternal care M PARKER J Am M Ass 1927 lxxxix 2083

The treatment of retention of ovular debris in the postpartum period J L WODON Bruxelles méd 1927 viii 108

Early retroversion of the uterus after delivery A FRUHNHOLZ Bull Soc d obst et de gynec de Par 1927 xvi 501 [298]

Experiences of physicians in the Orient with puerperal venous thrombosis J FALLSCHIEFER Zuercher Schweiz med Wchnsch 1927 lvi 954

The sitting posture for the prevention of postpartum hemorrhages and chills in puerperal women I LICHTENSTEIN Fortschrd d Therap 1927 lii 121 159 198

Repeated severe arterial hemorrhages in the late puerperium from a perineovaginal lesion (due to peptonized chyme?) G WENDEL Ztschr f Geburtsh u Gynaek 1927 ci 622

Puerperal sepsis D GORDON Med J Australia 1927 Supp 16 488

Observations on puerperal sepsis particularly the localization and frequency of metastases C BRUEGELMANN Monatsschr f Geburtsh u Gynaek 1927 lxxvi 404 [298]

The treatment of puerperal infection by local vaccine therapy II antistreptococcus filtrates FALGÈRE Bull Soc d obst et de gynec de Par 1927 xvi 652

Local vaccine therapy in the treatment and prevention of puerperal infection ANDERONIAS and BALARD Bull Soc d obst et de gynec de Par 1927 xvi 654

Seiobacteriophage and chemotherapy in the prophylaxis of puerperal infections WODON and SHANITOFF Bull d obst et de gynec de Par 1927 x i 688

A method of draining the septic uterus A R HOBBS Brit M J 1927 v 1223

Total gangrene of the uterus during the puerperium E WEINZIERL Arch f Gynaek 1927 cxxx 521 [299]

Certain acute pulmonary complications of the puerperium with special reference to lung abscess after operative treatment G E LEARMONTH Canadian M Ass J 1927 vii 1474

Scarlet fever during the puerperium W POESCH Ztschr f Geburtsh u Gynaek 1927 xc 609

Newborn

The length and weight of the fetus at term in the light of the statistics of variations J AEBLY Arch f Gynaek 1927 cxxx 403

The length and weight of the fetus at term in the light of the statistics of variations E WEHDFRITZ Arch f Gynaek 1927 cxx 413

Resuscitation of apparently dead newborn babies with the help of the electric current F ISREAL Ztschr f Geburtsh u Gynaek 1927 xci 602

The measurements of newborn infants and embryos in Finland Y KAJAVA Duodecim 1927 cliii 683

A case of human cyclopia resembling anophthalmia C BACHMAN Am J Obst & Gynec 1927 vii 797

Witches milk and the histological changes in the breast of the newborn H HOELAND Monatsschr f Geburtsh u Gynaek 1927 lxxvii 4

Shoulder luxation in a newborn child FORCET URION Bull Soc d obst et de gynec de Par 1927 xvi 645

The prevalence and duration of breast feeding in hospital practice A L McILROY J Obst & Gynaec Brit Emp 1927 xxxi 720

Artificially feeding the newborn infant C C PAYNE Ohio State M J 1927 xxviii 983

An open beauty pin in the ophthalmus of a six weeks old infant D H BALLOU Canadian M Ass J 1927 xvii 1517

Universal edema of the fetus M L PÉREZ and A JAKOB Bol Soc de obst y gynec de Buenos Aires 1927 vi 359

Congenital heart failure in infants recognized before birth PHILIPP Ztschr f Geburtsh u Gynaek 1927 xci 66

Fever in the newborn R M TISON Am J Dis Child 1927 xxxiv 979

Lobar pneumonia in the newborn a contribution on the relation between the course of acute infection and the state of immunity A FALCIE Ztschr f Geburtsh u Gynaek 1927 xci 627

The indigocarmine test as a method of diagnosis* renal tuberculo is M HUBLEUR J d urol méd et chir 19 7 xiv 252 [301]

A review of eighty five nephrectomies for renal tuberculo sis SERESE IDARZ Clin ylab 1927 xiii 353 [301]
Fchinococcus of the kidney M DAINELLI Ann ital di chir 1927 vi 908

The early diagnosis of renal tumors J GOTTLEB J d urol méd et chir 1927 xxiv 224 [302]

Specimen contracted granular kidney with adenoma tous hypertrophy J H DIBLE and H C GREGORY Proc Roy Soc Med Lond 19 7 xi 219

Con genital cysts of the kidneys E P WARD N York State J M 1927 xxvii 13524

Further observations on villous tumors of the renal pelvis and the ureter E DOZSA Ztschr f urol Chir 1927 xi 81 [302]

Surgical diseases of the kidney Brit M J 1927 ii 1086

Renal denervation E AIEVOLI Riforma med 1927 xlii 1067

Completed aseptic technique for the implantation of the ureter into the large bowel R C COFFEY Surg Gynec & Obst 19 7 xlv 816

Dilatation of the ureter in the male autopsy findin s W J CARSON Am J Surg 1927 iii 547

The technique of dilatation of the ureter G M LAWS Am J Obst & Gynec 19 7 xiv 843

Uteral stricture C MAZER Am J Obst & Gynec 1927 xiv 761

The significance of the ureteral kink C K SMITH and N F OCKERBLAD J Missouri State M Ass 19 7 xvi 536

An unusual ureteral stone J HERMAN Magy Roent gen koezloeny 1927 ii 15

Curious malin ering in a case of ureteral calculus G W OUTERBRIDGE Am J Obst & Gynec 1927 xiv 840

Bladder Urethra and Penis

Indication technique and limitations of cystography G WIGET Riforma med 1927 xliii 1151

Hernia of the urinary bladder—report of a case J A HUNNICUTT JR Internat J Med & Surg 1927 xl 490

The history and picture of a vesical diverticulum LAHAVILLE Arch franco belges de chir 1927 xxx 126

Foreign body in the bladder H H WOODS Brit M J 1927 ii 1140

Another case of congenital hypertrophy of the neck of the bladder MARION and CHEVASSU J d urol méd et chir 1927 xxiv 161 [302]

Colloid carcinoma of the bladder E L YOUNG Boston M & S J 1927 cxvii 1079

The treatment of bladder tumors by chemococulation L S DREYLER and W GINSBERG Surg Gynec & Obst 1927 xlv 820

Operation for papilloma vesicæ Brit M J 1927 ii 1147

The surgery of epithelial bladder tumors G CRAIG and R K L BROWN Med J Australia 1927 Supp ii 337 [303]

Prolapse of the urethra in girls H R LOVA Atlantic M J 1927 xxvi 181

Foreign bodies in the urethra report of cases E S POMEROY J Urol 1927 iii 667

Structure of the urethra with calculi in scrotal s nuses J M VENABLE J Urol 1927 xvii 671

Mechanical urin ry incontinence in the female autoplasic operation upon the urethra recovery F CATHELIN Bull et mém Soc d chir de Par 1927 xix 617

Espasmodic in women case report W C SEXTON J Urol 19 7 xviii 663

Genital Organs

Primary carcinoma of the bulb D P McCUNE Atlantic M J 1927 xxvi 182

Anatomical and histophysiological studies on the prostatic utricle A HUERT Arch d mal d reins et d organes génito urinaires 19 7 ii 98

The normal physiology of the prostate and certain functional chan es due to benign hypertrophy R B McKAY JR South M & S 1927 lxxix 878

Enlarged prostate Lancet 19 7 cc iii 1392

Complete retention due to hypertrophied prostate and complicated by strictu e J APPLEYARD Atlantic M J 19 7 xxvi 184

Septicæmia and acute prostatitis GAYET Lyon chir 1927 xxv 54

Prostatectomy M CHEVASSU Bull et mém Soc nat de chir 9 7 liii 56

Twenty three c ses of hypogast c prostatectomy LATOUCHE and E MICHON Bull et mém Soc nat de chir 1927 liii 18

Immediate and end results of sup apub c prostatectomy a consideration of the factors nvolved V C HUNT Canadian M Ass J 19 7 xvii 1462

Lympho ranulomatosis of the prostate a heretofore unobserved disease P BLATT and A MARKUS Ztschr f urol Chir 19 7 xvii 208

Unique dissemination of a prostatic sarcoma H SCHULFER Ztschr f urol Chir 9 7 xliii 9

Observations on the physiology and therapy of the seminal duct W T BELFIELD and H C ROYNICK J Am M Ass 9 7 li x 214

The treatment of acute epididymitis a study of 3 000 cases M F CAMPBELL J Am M Ass 1927 lxxvix 2108

Röntgenotherapy of seminomata LAVENANT Bull et mém Soc d chir de Par 1927 xix 691

The part of surgery and roentgenotherapy in the treatment of seminomata AUBOURO and JOLY Bull et mém Soc d chir de Par 19 7 xix 648

Subacute orchitis in a child and torsion of Giralde's organ A MICHIEL and A MOUCHET Bull et mém Soc nat de chir 1927 liii 1144

Mumps of the testes without parotitis R W DANIEL SON J Am M Ass 1927 lxxxi 204

The treatment of undescended testicle C K SMITH J Kansas M Soc 1927 x ii 411

Malignancy in an undescended abdominal testis with torsion S J PEARLMAN J Urol 1927 xviii 637

Symptomatic varicocele J BATE J Urol 1927 xvi 649

Canrene of the scrotum due to self induced rupture of the urethra B P CONWAY and E W HIRSCH Ill nois M J 1927 l 493

Miscellaneous

Yearbook of urology and allied branches an annual index of the Zeitschrift fuer urolo ische Chirurgie and a continuation of the Kollmann Jacoby urological yearbook A von LICHTENBERG and C POSNER 1927 Berlin Sprin er

The question of human sterility G L MOENCH Zent allh f Gynaek 1927 li 2730

The presence of the female sex hormone in the urine of males E LAQUEUR E DINGEMANSE P C HART and S E DE JONGH Klin Wehnschr 19 7 vi 1839

- Some aspects of the problem of joint tuberculosis
R A HIRNS Canadian M Ass J 1927 xvii 1514
- Oxodoyl benzoic acid in the treatment of arthritis
R L JEFFERY and K S BURNS Northwest Med
1927 xvii 586
- Two cases of fibrocystic disease of the humerus treated
by different methods S J D BUXTON Proc Roy
Soc Med Lond 1927 xxi 33
- Puption of the biceps brachii A R JONES Proc Roy
Soc Med Lond 1927 xxi 231
- Sarcoma of the forearm de eloped after twenty years
on a fracture focus PAVIE and PAUCHET Bull et mfm
Soc d chir de Par 1927 ix 693
- Tumor of the trapezius P H MITCHNER Proc Roy
Soc Med Lond 1927 xi 270
- Anatomical studies of 1 chemic contracture SCHULTZE
Zentralbl f Chir 1927 liv 481
- Dupuytren's disease G ANTONOLI Ann ital chir
1927 vi 11
- Dupuytren's contracture in a girl of fifteen years
A H TOND Proc Roy Soc Med Lond 1927 xxi 23
- Dupuytren's contracture after operation P B ROTH
Proc Roy Soc Med Lond 1927 xxi 232
- The treatment of Dupuytren's contracture of the finger
L STRUENKE Zentralbl f Chir 1927 liv 2438
- Epiphysitis of the metacarpal heads with lithollosis
of the hand MAUCLAIRE Bull et mfm Soc nat de
chir 1927 li 377
- Stranulation of the tendons of the long abductor and
short extensor of the thumb stenosis tenosynovitis of
De Quervain LAROCHE and BOUVISSET Arch franco
belges de chir 1927 xxi 95
- Necrosis of terminal phalanx of a finger C BEARSE
Boston M & S J 1927 xcvi 1083
- The dynamics of the functions of the hand with con
siderations as to methods of obtaining the position of
function by splints A B KANAVEL Med J Australia
1927 ii 598 [304]
- Tenderness of the sternum in leukemia L F CRAVER
Am J M Sc 1927 clxvii 799
- Cervicothoracic fibrous ossous malformations G AIGROT
Lyon chir 1927 xiv 52
- Structure of scoliosis the present status of the treat
ment L S LUCAS Northwest Med 1927 xxi 588
- Statistics of scoliosis based on studies of Magdeburg
school children A BLECKE Ztschr f orthop Chir
1927 xlii 123 160
- The theory of scoliosis co sets H VON BAERER
Ztschr f orthop Chir 1927 liii 412
- Permanent correction of spondylitic gibbus in a plaster
bed A HILSE Zentralbl f Chir 1927 liv 2514
- Concital abnormality of cervical vertebra T T
HIGGINS Proc Roy Soc Med Lond 1927 xxi 24
- Anatomical and postural variations of the lumbosacral
pine E H SKINNER Radiolo 1927 iv 451
- The diagnosis of concital platyspondyli and micro
spondyli their embryologic significance LANCE Bull
et mfm Soc nat de chir 1927 lii 1250
- Spondylolysis S H SCOTTALL Med J Australia
1927 ii 783
- Spondylolysis A MOLTCH and C ROEDERER
Rev d orthop 1927 xxvii 461
- Low back pain C BOWMAN Med J Australia 1927
ii 808
- Low back sprain the sacro-iliac syndrome H LUSKIN
and H SONNENSCHEN Am J Surg 1927 i 534 [305]
- The orthopedic aspect of low back pain D J GLISSAN
Med J Australia 1927 i 803
- An arising from the fourth cervical vertebra WHITE
N Zealand M J 1927 xxvii 254
- Osteitis of the vertebral bodies in Pott's disease J
CALVÉ and M GALLAND Presse m'd Par 1927 xxv
1377
- Myeloma of the vertebral column with Bence Jones
reaction R MORICHAU BEAUCHANT Bull et mfm Soc
m'd d hôp de Par 1927 xliii 1342
- Chondroma of the cervical spine PATEL Lyon chir
1927 xxv 606
- Concital coccydynia or malococcyx T T HIGGINS
Proc Roy Soc Med Lond 1927 xxi 224
- The length of the hamstring muscles in Zuppinger's
complementary flexion K FISCHER Arch f orthop u
Unfall Chir 1927 xxi 401
- The value of percussion of the great trochanter M
REZENDE Arch brasil de med 1927 xvii 805
- The snapping knee H FISCHER Zentralbl f Chir
1927 li 08
- A corrective of ice for soft tissue contractions of the
knee and elbow joints H C MASLAND Am J Surg
1927 iii 59
- Anatomical variation of the semilunar cartilage W R
BRISTOW Proc Roy Soc Med Lond 1927 xxi 41
- Cysts of the semilunar cartilages of the knee I ZADEK
and H L JAFFE Arch Surg 1927 xv 677 [302]
- Injury of the medial ligament of the knee M
KATZENSTEIN Zentralbl f Chir 1927 liv 066
- Laceration of the internal meniscus of the knee partial
ablation PATEL Lyon chir 1927 xiv 538
- Three cases of concital curvature of the leg with
anterior concavity H L ROCHER and A MOUCHET
Bull et mfm Soc nat de chir 1927 liii 1318
- Osteomyelitis of the fibula J PIQUET Rev de chir
Par 1927 xlii 59
- Giant cell tumor of the lower end of the tibia osteo
pe osteal grafts A TREVES Paris chir 1927 xiv 199
- The statics and mechanics of the artificial leg BOHMER
Monatsschr f Unfallheilk u Vericherun smed 1927
xxvii 233
- Weak feet and postural defects J H POWNETT North
west Med 1927 xv 592
- Contribution to flat foot L ROSENFELD Monatsschr
f Unfallheilk u Vericherun smed 1927 xiv 17
- Some considerations on congenital pes adductus U
CAMERA Rev d orthop 1927 xxvii 715
- A club foot skeleton of the type described by Virchow
A HAHN Ztschr f orthop Chir 1927 xliii 393
- A case of bone softening (Koehler-Kienboeck et al) in
the neck of the astragalus K VOGL Zentralbl f Chir
1927 liv 2510
- Giant cell tumor of the astragalus L MICHEL Rev
d orthop 1927 xxvii 75
- An operation for claw toes C LAMBRINUDI Proc
Roy Soc Med Lond 1927 xxi 230
- Arthritis deformans of the metatarsophalangeal joint
of the great toe as a definite clinical entity H WATER
MAN Ztschr f orthop Chir 1927 xliii 346
- Osteitis fibrosa of the sesamoid bone (under the first
metatarsal) K GRIEF Zentralbl f Chir 1927 liv
259
- ### Surgery of the Bones Joints Muscles Tendons Etc
- The value of albumin and globulin determinations in
surgery ACHELES Zentralbl f Chir 1927 li 2152
- The treatment of common bone injuries F W RYER
son J Ind ana State M Ass 1927 x 451
- The treatment of congenital pseudarthroses C DUJAN
RIER Rev d orthop 1927 xxvii 641
- A case of bone prosthesis H CAUDIER Bull et
rofm Soc nat de chir 1927 liii 106

Habitual dislocation of the shoulder I FESSLER
Zentralbl f Chir 1927 liv 2467

The treatment of habitual dislocation of the shoulder
E HEYMAN Zentralbl f Chir 1927 liv 1411

Operation for habitual dislocation of the shoulder
BUNDSCHUH Zentralbl f Chir 1927 liv 2469

The treatment of fracture dislocations of the shoulder
HYBBINETTE Zentralbl f Chir 1927 liv 2278

Dislocation of the shoulder associated with fracture
of the scapula J GROSSMAN Med Times 1927 liv 276

Complete external luxation of the clavicle treated by
coracoclavicular syndesmopty BOTREAU ROUSSEL Arch
franco belges de chir 1927 xxv 137

High supracondylar and intercondylar fracture of the
humerus osteosynthesis with a Y shaped plate inserted
by transolecranon arthrotomy good result H I ROCHER
and GUILLEMIN J de méd de Bordeaux 1927 civ 723

A new splint for the upper arm for use in general practice
E STAHNKE Zentralbl f Chir 1927 liv 1676

The prophylactic treatment of osteomata of the elbow
after luxation of the elbow CIEVRIER Bull et mém
Soc nat de chir 1927 liv 1339

Open luxation of the elbow late results L GRIMVAULT
and H ROUVILLOIS Bull et mém Soc nat de chir
1927 liv 1360

Symptoms and treatment of fractures of the elbow
D JIVE South M J 1927 xx 953

Injuries and traumatic diseases of the carpal bones S
WEIL Beitr Klin Chir 1927 cxi 230

Isolated luxation of the carpal navicular and its treat-
ment J GANGLER Zentralbl f Chir 1927 liv 2054

Three cases of fracture of the bones of the carpus
SOLCARD GUICHARD and A MOUCHET Bull et mém
Soc nat de chir 1927 liv 1345

The conservative treatment of intra articular fractures
of the os naviculare carpi L GOLD Beitr z klin Chir
1927 cxl 251

Luxation of the vertebral column VAN ERPS J de
chir et Ann Soc belge de chir 1927 p 64

Compression fractures of the spine R B OSGOOD J
Am M Ass 1927 lxxvi 563 [309]

An accurate method of determining pressure upon the
cord in fracture of the spine C C COLEMAN Internat
J Med & Surg 1927 xl 481

The treatment of fractures of the thoracic and lumbar
vertebrae M GRASMAN Zentralbl f Chir 1927 liv
1514 [310]

Two cases of separation of the pubic symphysis treated
without operation late results AUREAY Bull et mém
Soc nat de chir 1927 liv 1276

Old luxation of the left hip and fracture of the right
femur resulting in compensation L CAPETTE Bull et
mém Soc nat de chir 1927 liv 116

Early treatment of congenital dislocation of the hip
V PURRI Arch ital di chir 1927 lviii 653

Fractures of the hip C KAIL Nebraska State M J
1927 xu 454

Fracture of the acetabulum with central luxation of
the hip A CATERINA Chir d organi di movimento
1927 vi 595

Fracture dislocation of the acetabulum P B POTI
Proc Roy Soc Med Lond 1927 xvi 239

Late results of epiphyseal separations at the upper
end of the femur A NUSSBAUM Beitr z klin Chir
1927 cxl 704

Fracture of the diaphysis of the femur treatment by
skeletal traction M B STOKES South M J 1927 xx
952

A new method of fixation in fractures of the neck of
the femur R LASCAUX Presse méd Par 1927 xxxv
1187

Isolated fracture of the lesser trochanter O FINZI
Arch ital di chir 1927 lvi 669

The operative treatment of habitual dislocation of the
patella J VORSCHWETZ Zentralbl f Chir 1927 liv
2627

A compound comminuted fracture involving the ankle
joint treated by the bipp method R MORISON Brit
M J 1927 vi 77

Some considerations on the treatment of fractures of
the astragalus H OLIVEROVA Acta chirurg Scand
1927 lxx 353 [310]

The operative treatment of paralysis of the feet The
myositis and activation tenodesis of Haglund A
GRUCA Polski prze lad chir 1927 i 250

Longitudinal fracture of the head of the first metatarsal
from direct injury BOTREAU ROUSSEL and A MOUCHET
Bull et mém Soc nat de chir 1927 liv 1223

Fractures of metatarsal bones by indirect violence C
R FOULERTON and G F STEBBING Lancet 1927 cxviii
1225

Orthopedics in General

Orthopedics and exercise German Orthopedic Society
1927 Stuttgart Enke

Epileptiform seizures following simple non operative
orthopedic procedures O MAYR Ztschr f orthop Chir
1927 xl vi 392

An adjustable metatarsal pad H MILCH Am J
Surg 1927 lvi 594

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

Blood Vessels

Two comparatively rare blood vessel variations V
LASSILA Duodecim 1926 xli 213

Forgotten observations on the capillaries H STEGE
MAN Klin Wchnschr 1927 vi 412

Forgotten observations on the capillaries B O
FRIDMAN Klin Wchnschr 1927 vi 1661

Multiple hereditary telangiectasis J BALTH Boston
M & S J 1927 cxvii 1177

Consideration of angiomata in infancy A M MARQUE
Rev ototo neurostomatol y de ciug neurol 1927 i 202

Osteolytic hypertrophic varicose nevus clinical and patho-
genic observations A SZARY and A LICHTWITZ Bull
et mém Soc méd d hôp de Par 1927 xliu 1601

A case of epithelioma developing in a nevus with
cancerous metastasis L E N KINDBERG and R CARCIN
Bull et mém Soc méd d hôp de Par 1927 li
1361

Radon in the treatment of cutaneous nevi F E
SIMPSON and R E LILHER J Am M Ass 1927
lxxxi 2028

Examination of the arterial reaction with Pachon's
oscillometry G BILLARD Presse méd Par 1927
xx 499

Hemorrhages from the internal carotid at the base of
the skull H SCHLOFFER Beitr klin Chir 1927 cxl
577

Ligation of both artery and vein H F PEARSE Ann
Surg 1927 lxxvi 80

Constitutional serology in relation to studies on blood groupin L HIR FELD Klin Wchns hr 1927 vi 1881 19

The importance of blood groupin for transfusion W BAER Monatsschr f Geburtsh u Gynaek 1927 lxxv 284

The blood groups of the Indians and the natives of northern Argentina S MAZZA and I FRANKS Bol inst de clin quir 1927 iii 137

Apparatus for blood transfusion TZANCK and CUDENAT Bull et m Soc nat de chir 1927 lvi 278

An instrumentarium for all eventualities in a blood transfusion A KUBANAI Zentralbl f Chir 1927 li 2578

A note on blood transfusion in Syria with an analysis of 149 blood groupin E H R ALTOUNYAN Lancet 1927 ccv ii 1342

Blood transfusion in young children A J TURNER Med J Aust alia 1927 Supp 15 463

Blood transfusion experiences at the surgical clinic at Basel II HEUSSER Beitr z klin Chir 1927 cvl 444
A case of immunotransfusion ORCHARD and GRAY N Zealand M J 1927 xxvii 255

Lymph Vessels and Glands

Tuberculosis of the cervical lymph node in infancy the value of the roentgen ray in its diagnosis F C DUNHAM and A M SMITH Am J Dis Child 1927 cv 97

Syphilis and Hodgkin's disease L LANGERON Bull et m Soc med d hôp de Lar 1927 xliii 169

The treatment of subacute mesenteric adenitis with injections of emetin results in thirty five cases F DESTÉVARD and R F VACCAREZZA Presse méd Par 1927 cv 1378

Mesenteric lymphadenitis and its clinical manifestations G D F McFADDEY Brit M J 1927 ii 74

SURGICAL TECHNIQUE

Operative Surgery and Technique Postoperative Treatment

The pre and postoperative treatment of major surgical cases L B HOWELL and F A HECKER J Iowa State M Soc 1927 viii 439

Preoperative accination P MORVARD Pes et m d Par 1927 xxx 1319

A preliminary note on a new method of recording blood pressure with the presentation of a model D R BARR Anes and Anal 1927 vi 273

Continuous blood and saline transfusion during operations on poor circulatory risk patients H J SHIELDS Anes and Anal 1927 i 292

Blood concentration in superficial burns F P UNDER HILL Ann Surg 1927 lv vi 840

The surgical treatment of burns D E S COLEMAN J Am Inst Homeop 1927 1041

Denuded surfaces treated by tannic acid A B WALTER Canadian M Ass J 1927 lvii 1517

Elastic operations on the skin A comprehensive presentation of general and special surgery K THISEN HILSEN 1927 Berlin Urban & Sch arzenberg

A new method of covering denuded areas with the surrounding skin L D HIGGINS Surg Gynec & Obst 1927 lv 823

The management of Wolfe grafts DAVIS Ann Surg 1927 lvi 945

Reconstitution of the lumbosacral region by autoplast graft BURTY Bull et m Soc l chir de Par 1927 vi 677

The tensile strength of silk suture material J E SCARFF Ann Surg 1927 lxxvi 940

The preparation of petrolatum d annage gauze W H ROBINSON J Am M Ass 1927 lxxvi 1967

Surgical conalescence C ROBERT Brit M J 1927 ii 1013

The treatment of the heart following operation KAPFER Zentralbl f Chir 1927 liv 2398

Restoration of heart function by adrenal injections C SILLMAN Duodecim 1926 li 34

Intravenous glucose medication D STEIN Med J & Ec 1927 cxvii 654

The vitamin factor in slow cicatrization J M GONZÁLEZ GALVÁN Re méd de Barcelona 1927 v 381

A new method in the treatment of slow cicatrization J M GONZÁLEZ GALVÁN Re méd de Sevilla 1927 xlv 5

An unusual fatal operative wound infection 3 eldian a pathogenic anaerobe of the gas gangrene group not hitherto described with direct reference to catgut as a suture F L MELENEY F B HUMPHREYS and L CARP Surg Gynec & Obst 1927 xlv 775 [318]

The postoperative destruction of protein its demonstration and significance M BUEFORD and M GRAHAM Klin Wchnschr 1927 vi 1716 1767

Postoperative distention C B BENEDICT Anes and Anal 1927 vi 270

Isaen in the treatment of atony of the bowel following operation f HASLER Med Klin 1927 xxiii 931

Postoperative biliary emetition and reurgitation A L LEVIN South M J 1927 xv 903

The treatment of postoperative urinary retention W BUTERLINO and T BURGHELE Presse méd Par 1927 xxxv 1414

Postoperative massé atelectasi I The influence of posture W J M SCOTT and J J JOELSON Arch Surg 1927 xv 855

Intrapleural pressure in postoperative atelectasis D C ELKIN Ann Surg 1927 lxxv 1835

Chronic postoperative tetany A S JACKSON Ann Surg 1927 lxxvi 855

Antiseptic Surgery Treatment of Wounds and Infections

A case of extensive traumatic alopecia PETIT DE LA VILLIEN Bull et m Soc d chir de Par 1927 vii 726

Local immunization therapy according to Besredka in certain purulent conditions A GABAY Zentralbl f Chir 1927 liv 2124

Critical remarks on vaccine therapy J FORSSMAN Zentralbl f Chir 1927 liv 2337

Pyogenic infections in vaccine therapy A BRUSCHLT TMR Rev méd de Barcelona 1927 iv 406

Ten cases of intractable chancroidal phagedæna treated by antistreptococcal vaccine M F OLIVEROCA Bol inst de clin quir 1927 iii 695

The physiology and treatment of wounds A ON GAZA Zentralbl f Chir 1927 liv 2709

The differential action of X rays in relation to the improvement of radiotherapy W MOPPETT Med J Australia 1927 Supp 25 451

The action of the roentgen rays in bacterial inflammations an experimental pathologicohistological and clinical study W SCHAEFER Arch f klin Chir 1927 cxlvi 394 [315]

Radium

Radium therapy C F MORMAN J Lancet 1927 xliii 564

Plastic models for illustrating dosage in radium therapy D F CLEPHAN Brit J Radiol 1927 xxvii 440

Radium in adequate dosage in the treatment of cancer D QUICK J Am M Ass 1927 lxxxix 2035

Miscellaneous

Physical therapy A E HUDSON Med Herald & Physiotherap 1927 xlii 351

The use and abuse of physical therapeutics F B GRANGER J Am M Ass 1927 lxxxix 1194 [315]

Hydrotherapy in general practice G K ABBOTT Clin Med & Surg 1927 xxvii 930

The therapeutic inhalation of irradiated air L SPOL VERINI Iolichin Rome 19 xxvii sez prat 1615

Intensive methods of applying heat for the relief of pain and other therapeutic effects J H KELLOGG Am J Surg 1927 iii 577

Lithotherapy of the London Hospital J H SQUEIRA and W O DONOVAN Lancet 1927 ccviii 1118 [315]

Heliotherapy in the treatment of mental patients J A JACKSON and L R CHAMBERLAIN Med J & Rec 1927 cxvii 731

Sunlight and artificial light in the apy in tuberculosis O EGBERT Texas State J M 1927 xxiii 510

Actinometry and its possible application in heliotherapy V BORZAKOV Bol inst de clin quier 1927 iii 497

Ultraviolet light and children H G ROBERTSON Med J Australia 1927 Supp 16 511 Supp 17 55

MISCELLANEOUS

Clinical Entities—General Physiological Conditions

The contribution of industry to public health S M McCURDY Ohio State M J 1927 xxiii 99

Raynaud's disease Brit M J 1927 ii 148

Two cases of Raynaud's syndrome appearing after influenza pulmonary congestion P ISAAC GEORGES Bull et mém Soc méd d hôp de Par 1927 xlii 1423

A case of spontaneous gangrene of the foot of the Raynaud type and its treatment M ROVZINI Policlin Rome 1927 xxvii sez prat 695

Symmetrical gangrene of the extremities developing during an acute infectious disease and running the course of a transient complication G Lion Bull et mém Soc méd d hôp de Par 1927 liii 1451 [316]

Gas gangrene in civil practice M WEINTROB and C R WISSELOFF Am J M Sc 1927 cxliii 801

Gas gangrene following a motor accident F W MARSHALL Brit M J 1927 ii 1183

Gas gangrene following a motor accident E C ELLIS Brit M J 1927 ii 118

Surgery in diabetes J W DEVINE Virginia M Month 1927 i 575

A case of Madar foot C P LOPEZ Bol n t de clin quier 1927 iii 829

The treatment of ulcers and lacerations of the lower limbs by nerve stretchin M PÉRAIRE Bull et mém Soc d chir de Par 1927 i 66

Chloroma R C GAMBLE Illinois M J 1927 ii 466

Case of chloroma (?) supra orbital tumor R C JEWES Bury Proc Roy Soc Med Lond 1927 xxi 229

Veneral granuloma J J PUENTE B t inst de clin quier 1927 iii 79

A new case of encephalitic granuloma with vulvar perianal inguinal and inguinoantral canalization J C BERRI Bol inst de clin quier 1927 iii 71

Chondroma of the forearm and the growth of normal and tumor cell J C MOTTAM Lancet 1927 ccviii 33

Chromoma of the forearm A E Hertzler Ann Surg 1928 lxxvii 99 [316]

Studies on the relation between tumor susceptibility and heredity IV The inheritance of susceptibility to tar induced tumors in the lungs of mice C J LYNCHE J Exper Med 1927 xlii 917

Vaccine treatment of implanted tumors in the rat subsequent immunity T LUMSDEN Lancet 1927 cc iii 283

Resection of the cervical sympathetic in rats with experimental tumors F P TINOZZI and F IFFEN Ann ital di chi 1927 vi 1003

The development of fetal inclusions complicated dermoid and teratomata and their relationship to each other M BUDDE Monatsschr f Gebu tsh u Gynaek 1927 lxxiv 6

Some notes on cancer XXV W MEYER Med J & Rec 1927 cxviii 657

Some notes on cancer XXVI W MEYER Med J & Rec 1927 cxix 12

Periodic health examinations in the prevention and earlier recognition of cancer and other serious diseases J C BLOODGOOD New Orleans M & S J 1927 lxxx 345

Principles of the diagnosis of cancer H PÓVOA Arch brasil de med 1927 ii 904

A study of humoral alterations in cancer and precancer STOSSE and REIDING Cancer 1927 ii 442

Anemia as a predominant symptom in malignant disease D EISEN Canadian M A S J 1927 xvii 1506

Cancer due to industry G ROUS and A HÉRAUX Presse méd Par 1927 xxv 1574

Malignant disease of the skin J C FENWICK Med J Australia 1927 Supp 47

A case of multiple basal celled epitheliomata J A DRAKE Proc Roy Soc Med Lond 1927 xvi 188

Multiple X-ray basal celled carcinoma of the trunk W J O DONOVAN Proc R y Soc Med Lond 1927 x i 271

Cancer treatment from the medical aspect N W MARKWELL Med J Australia 1927 ii 835

The injection of autolytic cancer cells in cancer J THOMAS Rassegnaintern di clin et terap 1927 viii 786

The lead treatment of cancer TILMANT Presse méd Par 1927 xxv 1484

The lead treatment of cancer II J Ullmann Surg Gyn & Obst 1928 lvi 19 [316]

Cancer treatment from the surgical aspect A E LEE Med J Australia 1927 ii 83

Cancer mortality W R DALL Med J Australia 1927 ii 832

International Abstract of Surgery

Supplementary to
Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H MARTIN Chicago
SIR BERKELEY MOYNIHAN KCMG CB Leeds
PAUL LECENE Paris

SUMNER L KOCH Abstract Editor

DEPARTMENT EDITORS

| | |
|--|---|
| EUGENE H POOL General Surgery | LOUIS E SCHMIDT Gen to Urinary Surgery |
| FRANK W LYNCH Gynecology | PHILIP LEWIN O thoped c Surgery |
| JOHN O POLAK Obstetrics | ADOLPH HARTUNG Ro ntgenology |
| CHARLES H FRAZIER Neu ological Surgery | HAROLD I LILLIE Su gery of the Ear |
| F N G STARR Abdominal Surgery | L W DEAN Surgery of the Nose and Thro t |
| CARL A HEDBLOM Chest Surgery | ROBERT H IVY Pl stic and Oral Surgery |

CONTENTS

| | | |
|-----|--|---------|
| I | Index of Abstracts of Current Literature | iii |
| II | Authors | ix |
| III | Editor's Comment | x |
| IV | Collective Review | 345-355 |
| V | Abstracts of Current Literature | 356-422 |
| VI | Bibliography of Current Literature | 423-446 |

Editorial communications should be sent to Franklin H Martin, Editor, 54 East Erie St., Chicago.
Editorial and Business Offices: 54 East Erie St., Chicago, Illinois, U.S.A.
Publishers for Great Britain: Balliere Tindall & Cox, 8 Henrietta St., Covent Garden, London, W.C.

CONTENTS—MAY, 1928

COLLECTIVE REVIEW

THE TREATMENT OF FURUNCLES AND CARBUNCLES *Frederick Christopher M D F A C S Chicago* 345

ABSTRACTS OF CURRENT LITERATURE

SURGERY OF THE HEAD AND NECK

Head

- HAYN P V Sinus Pericrani (Reducible Blood Tumor of the Cranium) Its Origin and Its Relation to Hemangioma and Abnormal Arteriovenous Communication Report of a Case 356
- MOULONQUET P and PEYNET A Mixed Tumors of the Face 356
- BASS M H Acute Osteomyelitis of the Superior Maxilla in Young Infants 356

Eye

- COHEN M KILLIAN J A and KAMNER M Comparative Chemical Studies of the Ocular Fluids of the Cerebrospinal Fluid and of the Blood 357
- COSGROVE K W and HUBBARD W B Acid and Alkali Burns of the Eye 357
- ROSENOW E C Focal Infection and Electric Localization in the Pathogenesis of Diseases of the Eye 357
- WILMER W H Clinical Aspects of Ocular Tuberculosis 358
- BLED SOE R W Perithelioma of the Orbit 358
- TOROK C and REDWAY L D A Preliminary Report of Three Cases of Keratoconus 358
- MORGAN O G and HOWITT F D The Application of Heat by Diathermy in Iridocyclitis 358
- ELLIS Z H Nonoperative Treatment of Cataract with a Report on Lens Antigen Treatment 358
- SOWLES A Retinitis Punctata Albescens 359
- JONES L W Retinitis with Massive Exudates 359
- INTERSON J A The Etiology Diagnosis and Prognosis of Optic Neuritis 359
- ROVNE H The Nomenclature of Optic Neuritis 359
- BALLANTYNE A J Optic Neuritis as an Aid to Diagnosis 359

Ear

- FRASER J S A National Investigation of Otosclerosis 361
- LILLIE H I General Sections of Otitic Ossification Treatment by Blood Transfusion and Cerebral Dye 361

Nose and Sinuses

- HIMPSTEAD B F Intranasal Surgical Treatment of Chronic Maxillary Sinusitis 361

Mouth

- JUDO L S and NEW G B Surgery in Cases of Intra Oral Cancer 362

Pharynx

- BRENNEMANN J Abdominal Pain of Throat Infections in Children and Appendicitis 387

Neck

- VAN DEN WILDENBERG L Deep Actinomycosis of the Neck and Mediastinum 36
- SISTRUNK W E The Technique of the Removal of Cysts and Sinuses of the Thyroglossal Duct 363
- HERTZLER A E The Pathogenesis of Goiter Considered as One Continuous Disease Process 363
- SAGER W W Exophthalmic Goiter Pathological Change as a Result of the Administration of Iodine (Lugol's Solution) 363
- BOWING H H Malignant Tumors of the Thyroid Gland Treated by Operation Radium and the Roentgen Rays 364

SURGERY OF THE NERVOUS SYSTEM

Brain and Its Coverings Cranial Nerves

- LILLIE W I Ocular Phenomena Produced by Basal Lesions of the Frontal Lobe 365
- SHARPE W Observations Regarding Ventricular Punctures 365
- GOETTE K Roentgenological Visualization of the Cerebellum 365
- MOLESCH F P Tumors of the Brain and Syphilis 365
- CRAIG W McK Malignant Intracranial Endotheliomata 366
- ELSBERG C A The Dura Mater in Cranial Decompressive Operations 366

Spinal Cord and Its Coverings

- ROBINEAU and BANZET Section of the Anterolateral Tract of the Spinal Cord Chordotomy Operative Technique 366

- THOMPSON W and STEWART M J A Remarkable Example of the Tendency toward Recurrent Icteric Ulceration Following Gastro Enterostomy for Duodenal Ulcer 385
- WALTERS W and BOLLMAN J L The Toxæmia of Duodenal Fistula Physiological Changes Concerned in the Production of Its Characteristic Chemical Reactions of the Blood 386
- DRAPER J W and JOHNSON R K The Pathogenic Colon—Recent Studies 386
- BARGEN J A The Treatment of Chronic Ulcerative Colitis 386
- CARAVEN and BASSET Strictly Mechanical Obstruction of the Intestine without Abscess or Peritonitis in the Course of an Initial Attack of Appendicitis 387
- BRENNEMANN J Abdominal Pain of Throat Infections in Children and Appendicitis 387
- Liver Gall Bladder Pancreas and Spleen**
- MCINDOE A H and COUNSELLER V S The Bilaterality of the Liver 387
- SNELL A M and ROWNTREE L C The Functions of the Liver and Tests of Their Efficacy 387
- GRIMMUT L and BASSET V A Case of Traumatic Rupture of the Liver Early Operation Excision and Suture of the Hepatic Laceration Cure 388
- SNEIL A M and WEIR J F Diseases of the Liver and Bile Passages 388
- MCNICOL C S and FITTS W T Clinical Aspects of Jaundice 388
- HEAD C G Acute Hepatic Degeneration—Cholecystoastromy 389
- JUDD E S and COUNSELLER V S The Effects of Obstructive Lesions of the Common Duct of the Liver 390
- BOYDEN F A Concern the Prevalent Denial of Functions Inherent Attributed to the Gall Bladder 390
- DICK B M and WALLACE V G H Cholecystography Toxic Effect of the Dyes 391
- KIRKLIN B R CAYLOR H D and BOLLMAN J L The Concentration of Cholecystographic Media and Bilirubin by the Gall Bladder 391
- WILKIE A L The Bacteriology of Cholecystitis a Clinical and Experimental Study 391
- WANGENSTEIN O H Cholangitis Following Cholecystenterostomy 392
- CITTELLI H Splenectomy 392
- Miscellaneous**
- SMITH P The Relation of the Surgical Pathology of the Right Lower Quadrant to Arthritis 411
- TAYLOR K G Surgical Lesions of the Right Lower Quadrant Demonstrated in Patients with Chronic Deforming Arthritis by X-Ray Opaque Meal Examinations 411
- GYNECOLOGY**
- Uterus**
- MIRFIS F M Electrodialysis—Its Use in the Treatment of Benign and Malignant Lesions of the Uterine Cervix 393
- PALMER A C The Age Incidence of Carcinoma Corporis Uteri 393
- FLUHMAN C F Epidermalization of the Cervix Uteri and Its Relation to Malignancy 393
- DUSTIN A P A New Contribution to the Study of the Radiobiology of Carcinoma of the Cervix Submitted to Radium Therapy at a Distance 393
- POLAK J O The Present Status of Therapy of Cancer of the Uterus 394
- PETIT R Vaginal Hysterectomy Technique and Indication 13 Consecutive Cases without Complications 395
- Adnexal and Peruterine Conditions**
- FAIRBURN J S and SIMS T H Pseudomyoma Peritonici Associated with Ruptured Ovarian Cyst and Appendicular Disease 379
- RUBIN I C Observations on the Intramural and Isthmic Portion of the Fallopian Tubes with Special Reference to So Called Isthmospasm Based on Clinical X-Ray Lipiodol Study and Uterotubal Infusion in Fifty Cases of Tubal Occlusion 396
- DIXON W F and OTHER Discussion on the Action and Uses of Ovarian Extracts 396
- HUNT A C and SIMON H I Carcinoma of the Ovary in Infancy 397
- Miscellaneous**
- MEAKER S R A Working Classification of the Causes of Sterility 397
- IOBINS S A Cystography a Aid to the Diagnosis of Pelvic Lesions in the Female 397
- SCHILINK H H Pelvic Lymphangitis or the Role of the Lymphatics in Pelvic Inflammation 398
- BARTHELEMY Fibrous Pelvic Peritonitis 398
- OBSTETRICS**
- Pregnancy and Its Complications**
- KADJAR M K The Study of the Placental Circulation in Multiple Pregnancies by the Stereocentrogenic Method 399
- WALKER A Case of Rupture of the Uterus After a Previous Cesarean Section 399
- DOUGAL D The Clinical Features of Ectopic Pregnancy 399
- LACOUTURE J and MASSÉ L A Child Two and One Half Years Old Born of an Ectopic Pregnancy 399
- WALKER A Diabetes Mellitus and Pregnancy 399
- Labor and Its Complications**
- BAILEY H and WILLIAMSON H C Trial Labor as a Procedure in the Treatment of Patients with Contracted Pelvis 399
- MAXWELL A I A Study of Labor in Contracted Pelvis 399
- HUNTINGTON J L IRVING J C and KELLOR F S Abdominal Reposition in Acute Inversion of the Puerperal Uterus 401

- COTTON F J The Technique in the Use of Grafts in Cases of Non Union 420
- MILCH H Dislocation of the Head of the Radius A Suggestion for a New Operative Procedure 420
- PUTHI V Early Treatment of Congenital Dislocation of the Hip 420
- MOORE G A A Flexed Plaster Spica Case for Hip Fractures 420
- FINZI O Isolated Fracture of the Lesser Trochanter 420
- LOEBBERG O The Treatment of Fractures of the Neck of the Femur 389 Cases on the Surgical Service of the Municipal Hospital of Malmö 41
- ALBEE F H Late End Results in Ununited Fracture of the Neck of the Femur Treated by the Bone Peg or the Reconstruction Operation 421
- LEHMAN C P and ESKELDES I II Fracture of the Tarsal Scaphoid with Notes on the Mechanism Involved 422
- WILSON P D The Treatment of Fractures of the Os Calcis by Arthrodesis of the Subastralar Joint A Report on Twenty Six Cases 422
- STEPHENS V P Acute Intussusception Manipulative Reduction under Fluoroscopic Control 384
- DICK B M and WALLACE G H Cholecystography Toxic Effects of the Dyes A Clinical and Experimental Study 391
- KIRKLIN B P CAYLOR H D and BOLLMAN J L The Concentration of Cholecystographic Media and Bilirubin by the Gall Bladder 39
- LEHRN I C Observations on the Intramural and Isthmic Portion of the Fallopian Tubes with Special Reference to So Called Isthmospasm Based on Clinical X Ray Iridiodel Study and Uterotubal Insufflation in Fifty Cases of Tubal Occlusion 396
- ROBINS S A Cystography as an Aid to the Diagnosis of Pelvic Lesions in the Female 397
- KADJAR M K The Study of the Placental Circulation in Multiple Pregnancies by the Stereoroentgenographic Method 399
- MEPZ H Piontographic Measurement of the Compensatory Hypertrophy of the Kidney Remains after Nephrectomy 403
- HAGGER B H and BRAUSCH W F Cystography 406
- PICK I The Anatomical Roentgenological Differential Diagnosis of Syphilis and Libros Dys trophy of the Long Bones 410
- CAYLOR P G Surgical Lesions of the Right Lower Quadrant Demonstrated in Patients with Chronic Deformity Arthritis by X Ray Opaque Meal Examination 411

SURGERY OF BLOOD AND LYMPH SYSTEMS

Blood Transfusion

- COHEN M KILLIAN J A and KAMNER M Comparative Chemical Studies of the Ocular Fluids of the Cerebrospinal Fluid and of the Blood 357
- WALTERS W and BOLLMAN J I The Toxicity of Duodenal Fistula Physiologic Changes Concerned in the Production of Its Characteristic Chemical Reactions of the Blood 386

Lymph Vessels and Glands

- SCHILSKA H H Pelvic Lymphangitis or the Role of the Lymphatics in Pelvic Inflammation 398

PHYSICO-CHEMICAL METHODS IN SURGERY

Roentgenology

- BOWING H H Malignant Tumors of the Thyroid Gland Treated by Operation Radium and the Roentgen Rays 364
- GOETTE K Roentgenological Visualization of the Cerebellum 365
- KIRKLIN B R and PATERSON R The Roentgenological Manifestations of Primary Carcinoma of the Lung 375
- HOLMES G W and DRESSER P The Use of Amyl Nitrite as an Antispasmodic in the Roentgen Examination of the Gastrointestinal Tract 380
- CASE J T and BOLDYREFF W N The Influence of the Roentgen Rays upon Gastric Secretion 380

Radium

- BOWING H H Malignant Tumors of the Thyroid Gland Treated by Operation Radium and the Roentgen Rays 364
- DUSTIN A I A New Contribution to the Study of the Radiobiology of Carcinoma of the Cervix Submitted to Radium Therapy at a Distance 393
- POLAK J O The Present Status of Therapy of Carcinoma of the Uterus 394
- INGEBRIGTSEN R Cancer of the Bladder Treated with Radium Cure of Seven Years Duration 407

Miscellaneous

- MORGAN O G and HOWITT F D The Application of Heat by Diathermy in Idiocyctitis 358
- ANDERSON J Surgical Diathermy in Breast Cancer The Application of the Arc Electrode or Cutting Current to the Radical Operation 371
- WIKELS F M Electrodialysis—Its Use in the Treatment of Benign and Malignant Lesions of the Uterine Cervix 393
- BEER L The Treatment of Tumors of the Bladder with Physical Agents 406
- ROLIER A Heliotherapy in Hip Joint Tuberculosis 413

EDITOR'S COMMENT

CHRISTOPHER's critical review of the literature of the past five years on the treatment of furuncles and carbuncles (p. 345) deserves careful reading. As one observes the trends in surgical teaching and practice today, he cannot help but be impressed with the relatively scant attention that is being paid in medical school and hospital to the correct and efficient treatment of infections as compared with the emphasis that is being laid upon the so-called major surgical diseases. Frequently the graduating student and the hospital resident have definite and sound conceptions of the surgical management of a case of thyroid intoxication but very hazy ideas of basic principles involved in the treatment of an infected wound and of the most effective method of applying those principles. If then the instructor and the attending surgeon show little interest in the subject or assume that the student is already well versed in it, the young surgeon may fail entirely to gain a comprehensive knowledge of the most effective methods of treating the very cases he is most likely to encounter during his early years of practice. Christopher's review emphasizes again the principles involved in the surgical treatment of a type of infection which is both common and not infrequently difficult to manage and which for both reasons deserves careful consideration.

When one has listened with complacent ears to the oft repeated assertion that the leadership in modern medicine and surgery has passed from the old world to the new, it is with unpleasant feelings of surprise that he reads that the maternal mortality rate in the United States is one third higher than the maternal mortality rate in England and Wales and more than twice as high as that of Denmark, Italy, Japan, the Netherlands, New Zealand and Sweden (Baker, p. 40). In 1915 the mortality was 6.1 and in 1915-64 per 1,000 births. In Canada in the year from July 1, 1915 to July 1, 1926 it was 6 per 1,000 births (MacMurchy, p. 40). In Norway in the period from 1900 to 1918 the average puerperal death rate was 2.95 per 1,000 births (Kosmak, *J. Im. M.* 155, 19, lxxix, 209). *INTERNAT. ABST. OF SURG.* 1928 (xvi, 299) and 85 per cent of the deliveries are done by midwives.

Of particular significance is the statement of Baker that 40 per cent of the maternal deaths in the United States are due to puerperal infection and 10 per cent to instrumental deliveries and surgical procedures such as cesarean section. In other words, one of every two deaths results from infection or operative delivery. In discussing the possible remedies for this situation, Kosmak has made a number of helpful suggestions that deserve the thoughtful consideration not only of specialists in the field of obstetrics but of every member of the medical profession.

The constantly increasing interest that is being manifested in the subject of thoracic surgery, the widening indications for surgical treatment in the presence of intrapulmonary suppuration and the constantly improved results that are being obtained through the co-operation of workers in many different fields—experimental surgery, radiology, bronchoscopy, bacteriology and pathology—have been frequently emphasized in these pages. The experimental studies of Crowe and Scarff (p. 2) and of Allen (p. 37) supplement the work of Schlueter and Weidlein and of Ochsner and others on the pathogenesis and experimental production of lung abscess. The reports of Whitmore and Balboni (p. 73) and of Rogers and Kernan (p. 371) on the results of artificial pneumothorax in abscess and bronchiectasis and Archibald's discussion on the surgical treatment of pulmonary tuberculosis (p. 374) are other helpful contributions to the subject of thoracic surgery.

Balfour's paper on the surgery of the stomach and duodenum (p. 38) is a resume of the critical factors involved in the successful management of prostatic obstruction and of the results obtained in a large series of cases at the Mayo Clinic (p. 407). Boylen's experimental studies of gall bladder function (p. 390), Mosher's report of the results of examination with the barium bougie in cases of cardiospasm (p. 377) and Kraske's recommendation of the principle of elastic tension in the treatment of club foot (p. 416) are a few of numerous other interesting and helpful contributions which are abstracted in this month's issue of the *INTERNATIONAL ABSTRACT OF SURGERY*.

INTERNATIONAL ABSTRACT OF SURGERY

MAY 1928

COLLECTIVE REVIEW

THE TREATMENT OF FURUNCLES AND CARBUNCLES

By FREDERICK CHRISTOPHER M.D. F.A.C.S. CHICAGO

Associate Surgeon, University Medical School, Attending Surgeon, First Hospital, Chicago, Ill.

A SURVEY of the literature of the last five years which deals with the treatment of furuncles and carbuncles discloses a multiplicity of methods of treatment which reflects dissatisfaction with the usual methods and an active search for better ways. An appraisal of any system of treatment of carbuncles and furuncles is very difficult. Frequently several therapeutic measures are used simultaneously. There are considerable dissimilarities in the furuncles and carbuncles themselves. A writer may claim very favorable results from a method but is unable to furnish other control except what he *believed* the infection would have done without his treatment. The last remedy employed is often given credit which really was due the defensive forces of the body.

Several criteria are employed in the estimation of the value of a treatment. The criteria from the patient's standpoint named in decreasing order of their importance are: (1) the amount of pain; (2) the extent of the interference of the treatment with the patient's work; (3) the degree of inconvenience caused by the dressings; (4) the length of time required for recovery; (5) the size of the scar; (6) the need for a general anesthetic; and (7) the expense of the treatment. From the doctor's standpoint must be considered: (1) the amount of skill required; (2) the practicability of the treatment for practitioners with limited facilities; and (3) the practicability of the treatment in large hospitals where every facility is available (13).

The furuncle is the site of a conflict between the invading staphylococcus and the natural

defensive forces of the body. There is no fundamental difference between a boil and a carbuncle. The difference is due solely to anatomical and mechanical factors. The carbuncles differ because of the tough skin connected to the underlying fascia by strong vertical septa (81). Theoretically therapy has but two objects—to destroy or weaken the staphylococcus and to augment the protective mechanisms of the body. Practically however it is necessary to consider in the treatment the assuaging of pain and the general convenience of the patient. The infecting organism comes from without and passes through a portal of entry in the skin generally a hair follicle and the reaction to its invasion depends upon the virulence of the particular strain of bacteria, the state of the defensive forces of the host and the anatomical peculiarities of the site invaded. Furunculosis is a syndrome with very variable accompanying etiological factors (105). Why does a saprophytic organism suddenly become virulent? is asked.

There are all gradations between pimples and malignant carbuncles. The reaction of the tissues to the staphylococcus is either suppuration or necrosis (107). The core or slough is composed of dead tissue and dead cells. The early prognosis of a furuncle according to Schutz (114) depends upon: (1) the area of infiltration; (2) the intensity of the pain; and (3) the amount of systemic disturbance. Severe pain is not however a marked symptom of many very serious carbuncles of the neck. The situation of the furuncle is an important factor in its seriousness. As is well

known furuncles of the face and particularly those of the upper lip have a high mortality (18).

Hinton (49) has made very clear the anatomical proximity and relations of the anterior facial vein and its branches to the cavernous sinus. From the facial vein blood and organisms may pass by way of the inferior ophthalmic vein and the angular and superior ophthalmic veins by a sort of retrograde thrombosis. The mortality of furuncles of the face has been variously estimated. Of 103 cases of furunculosis in Favre's series in the period from 1911 to 1914 77 per cent were fatal (91). Moisan (50) believes that persons with malignant furuncles with sepsis from the start are doomed no matter what treatment is given. Dittrich (21) stresses fever as an important sign of a tendency toward malignancy in a furuncle of the face. Dittrich had eighty-eight cases of furuncle of the face. Ninety-five per cent were on the upper lip and in this group the mortality was 10 per cent. According to Hofman (51) the mortality in 82 cases of furuncle of the face at Bier's clinic was 82 per cent. In one third of the fatal cases the furuncle was on the upper lip. By some the mortality of lip furuncles is believed to be considerably higher.

Calts (9) recent case is illustrative of the danger of tetanization in furuncles of the upper lip. A boy of seventeen years picked a small pustule of the upper lip. The next day a small incision was made. Tremendous swelling then developed and the patient became stuporous. The white blood count varied between 23,000 and 150,000 and when the patient died six days later there was pus in the cavernous sinuses. In Combs (15) case the patient picked and squeezed a furuncle of the interior nares and death ensued three or four days later. Turner and Reynolds (218) report one death in sixty-three cases of furunculitis of the nasal vestibule, a mortality of 1.6 per cent. In the fatal case a small boil appeared upon the inner aspect of the right ala nasi. Two days later it burst with a free discharge of pus. On the following day heath became comatose and protrusion of the eyeball occurred. Death resulted six days after the onset.

Kaufmann (6) found the mortality of furuncle metastases to be about one per cent considerably lower than the delimitate of 5 per cent. The *locus minoris resistentiae* within the metastasis was generally the site of a hemorrhage and the prognosis as most serious in the cases in which the inner organs were involved.

Although accurate classification is impossible the treatment of furuncles and carbuncles may be considered under the following heads:

I Prophylactic treatment

II Local treatment

A Mechanical

- 1 Incision by knife including excision
- 2 Incision by cautery including excision
- 3 Ignipuncture (glow needle)
- 4 Sounding and dilatation
- 5 Phenol probe
- 6 Avoidance of trauma

B Chemical

- 1 Cataplasma and softening poultices
 - a Unguents
 - b Iodine
 - c Pancreatic ferments
- Hypertonic solutions
 - a Saturated boric acid solution
 - b Aluminum acetate
- 3 Antiseptic plasters and applications
 - a Iodol
 - b Iodine
 - c Ethylol

C Heat

- 1 Hot fomentations
- 2 Dry heat

D Irradiation diathermy, etc.

- 1 X-ray
- 2 Ultraviolet light
- 3 Diathermy

E Biological

- 1 Autoblood circuminjections
- 2 Vacuum cupping
- 3 Bier's hyperæmia
- 4 Horse serum
- 5 Histoplast

III Systemic treatment

A Biological

- 1 Vaccines
- Insulin
- Blood
- 4 Non specific protein therapy

B Pharmaceutical

- 1 Sulphur
- 2 Iodine
- 3 Mannanase
- 4 Quinine
- 5 Mercury
- 6 Mercurochrome
- 7 Turpentine

C Dietetic measure laxatives fluid rest

IV Anesthesia in furuncles and carbuncles

I PROPHYLACTIC TREATMENT

In his interesting review of the treatment of furuncles Lotsch (63) considers prophylaxis first. Under this heading may be mentioned first strict bodily cleanliness. More specifically where pus has come in contact with the skin as in the neighborhood of a discharging furuncle the skin must be scrupulously cleansed preferably with soap and water and washed with alcohol. All epithelial defects or abrasions must be avoided. Shaving with a dull razor traumatizes the hair root follicles. Men whose stiff collars cause skin friction are much more susceptible to furuncles of the neck than women who wear soft low collars. All abrasions and small wounds should be treated with antiseptics. Caution must be observed in the use of adhesive to fasten dressings to discharging wounds since furuncles may develop beneath it. As will appear later dietary precautions particularly those which may cause a lowering of the blood sugar may be of value. Treatment with the roentgen ray and with autogenous and polyvalent vaccines may be included under the head of prophylactic treatment but will be given more detailed consideration later.

II LOCAL TREATMENT

Opinion is divided as to the wisdom of incising furuncles and carbuncles. Lee and Downs (81) believe that there are two indications in the treatment of all pyogenic infections—the relief of tension and the removal of dead tissue. The situation of the lesion is of course of importance. Livingston (86) has made a careful study of carbuncles. In the last 30,000 surgical cases admitted to Bellevue Hospital New York there were 160 cases of carbuncle of the back of the neck. Livingston advises immediate excision of the necrotic tissue by a double crucial incision. He undercuts the lateral flaps in such a manner that they may be approximated by adhesive plaster as granulation progresses to bridge over the skin defect. Excision of a carbuncle or anthrax lesion is advised by Goldschmidt (36). Hyntschak (55) agrees to conservative measures only at the very beginning or the ending of a carbuncle of the back of the neck and advocates radical surgery when the lesion is at its height. Franke (27) incises early and cures. Lee and Downs (80, 81) Edmunds (3) and Axhausen (1) consider it important to make undercutting incisions parallel with the skin surface so that all the diseased fat columns may be opened. Drainage of the wound with secondary suture is employed by some surgeons (81).

Objections to the incision of a furuncle or carbuncle include the associated pain, the possibility of opening new channels of infection, the slow healing, the use of a general anesthetic and the disfiguring scar (87). Junkermin (61) employs conservative measures. He regards surgery in carbuncles and furuncles as criminal except in cases with fluctuation. Hasty incision is warned against by Pulley (101). Morison (91) states that in furuncles of the face incision gives no better results than conservative treatment and has the disadvantage of leaving a scar. Friedemann (3) emphasizes conservative treatment. In furuncles of the upper lip the evidence is unfavorable to incision. Dittrich (21) found that in twenty-two of forty cases of furuncle of the upper lip which were treated by incision the mortality was 13.6 per cent whereas in eighteen cases in which incision was not done the mortality was only 5.5 per cent. Melchior (90) collected twenty-three cases of face furuncles at the Breslau clinic. In the thirty-seven cases treated by incision there were four deaths and in the thirty-six cases treated conservatively there was but one death. Melchior believes however that incision was done in the more serious cases. He is inclined to the opinion that if the process is progressive suitable incision is the surest procedure to prevent further propagation.

As is well known the chief danger in furuncles of the face is cavernous sinus thrombosis and infection by way of the facial vein (Hinton 49). Traumatism is believed to increase the risk of thrombophlebitis with the meningeal sequelæ. Hofman (53) emphasizes the danger of picking and squeezing. Even the use of a sharp knife may aggravate the condition. One is somewhat reluctant to endorse the method of Gallemacq's (35) who treats early and radically every furuncle of the face with the galvanocautery. Schule (11) does a central cauterization of furuncles and inserts a cotton drum. Jopson (60) uses the cautery for ordinary carbuncles but does not do a complete excision on the face.

In 1919 first Kratzler (71) and then Schule (111) advocated central cauterization of furuncles with a glowing hot needle (ignipuncture). Koch (70) describes this method as painful but astonishingly valuable. After cleansing of the skin a glowing hot knitting needle is inserted from 6 to 10 mm into the crater of the furuncle. This is believed to destroy the first focus of infection. Without squeezing a gauze dressing is applied. Schutz's (113) method consists in sounding and dilating the carbuncle orifices and applying hot compresses. Braun (6) praises the Schutz

A method of aborting very early furuncles which is often successful consists in painting the small red indurated painful area with full strength tincture of iodine. Three or four coats may often be used to advantage the tincture being allowed to dry between applications (97). Wolfer (13) treats the earliest suggestion of a pyogenic cutaneous infection by anesthetizing the skin with carbolic acid in a very small cross and making in this carbolic cross a very shallow short crucial incision. The use of ichthyol was first advocated by Unna and has many proponents. Kismeyers (64-65) technique is as follows. Each furuncle is first cleaned with alcohol or iodine and dried and then covered with pure ichthyol. Over the thick oil of the ichthyol which soon dries a thin layer of cotton is applied. The little dressing sticks like collodion. The next day the dressing is removed with tepid water and the treatment is repeated. In some cases the dressing is changed twice a day. In cases of large furuncles Kismeyer uses the galvanocautery and ichthyol.

Grosschopf (40-41) has used an alcoholic solution of salicylic acid (Salizylspiritus) to paint furuncles. Analgit a solution of isothornallyl has been recommended by Brumer (5) for the treatment of furuncles. In 195 de Takats (20) reported thirty one cases of localized pyogenic abscesses in which aspiration was done through a needle placed to 3 cm from the border and a solution of rivanol was injected. Sterilization occurred in twenty six cases (85 per cent). After sterilization two small stab wounds were made and through them the necrotic contents were expressed. Although rivanol is supposed to be non toxic and non caustic some surgeons do not favor its use. Deep injections of phenol have gained but few adherents.

One of the chief agents in our present treatment of furuncles is heat particularly in the form of hot fomentations. It is important to give the nurse or attendant explicit directions as to the manner of applying the fomentations. The first requirement is that the dressings be massive so that an area considerably beyond the infected area will be treated. The second requirement is that the dressings be continuously warm and moist. A most convenient procedure consists in applying dressings wrung out of whatever hot solution is employed covering the dressings with a rubber sheet or oil cloth and fastening an electric pad on top of all. By this method a continuous moist heat is produced and the solution may be added at the corner of the dressing as needed. As a substitute for the electric pad a hot water bag

or frequent changes of the hot dressings may be used. Heat is greatly appreciated by the patient as a rule. In the treatment of carbuncles Livingston (86) uses dry heat after the first twenty four hours.

Potter (100) believes that the X ray is useful in the treatment of furuncles in a three fold way, first in the form of a localized erythema dose to abort incipient boils, second in the form of local treatment to hasten the healing and to make well developed furuncles less painful and third in the form of a wide light exposure to act as a preventive and prophylactic. Hodges (5) states that the roentgen ray acts almost as a specific in the majority of carbuncles. He adds however that the early deep types of carbuncles are probably treated most effectively by complete surgical excision.

Similarly Berndt () who reported four cases of successful X ray irradiation of furuncles of the face is of the opinion that thorough excision of the infected area is the proper procedure in carbuncles of the neck and back. In 1911 interest was attracted to the use of the X ray in furunculosis by Heidenhain (45) who recommended roentgen irradiation in resistant cases of axillary furunculosis. Heidenhain used barely one third of the ordinary erythema dose with a 3 mm aluminum filter and a large field. Lotsch (87) believes that the X ray is of value for early furuncles but does not influence the late ones. Lewis (84) reported sixteen cases of carbuncles treated with the X ray and believes that roentgen irradiation exerts a powerful influence on the progress of the carbuncle. While operation is unavoidable in a few cases Lewis claims that the X ray brings a speedier cure than surgery in the majority of cases.

Little has been written about the use of diathermy in furunculosis. Hunter (58) however has employed this method with success in the treatment of furuncles of the ear. Wilmoth (12) warmly recommends electrocoagulation in carbuncles believing it to have rendered obsolete the treatment of these lesions with the knife and cautery. He makes repeated hot punctures in the infected area and then cures out the coagulated tissue. Dittich (21) has had good results from electrocoagulation with fine needles.

Ionization or cataphoresis has been tried. Norrie (94) employed this method in furunculosis of the external auditory canal using per cent salicylate or soda packing. Laquernere (70) dipped the negative electrode in potassium iodide and placed it over the boil. This may have brought about an ionization of iodine.

Ultraviolet light has been tried in furunculosis. Treatment of the crater bed of an excised carbuncle with the water cooled ultraviolet lamp has a germicidal effect on the superficial organisms. The amount of penetrating effect is difficult to estimate. It is not unlikely that generalized ultraviolet radiations have a beneficial effect in raising the body's resistance to infection.

Following four fatal cases of carbuncles in which extensive incision had been done, Laewen (75) in 1931 began to use injections of the patient's own blood. The whole blood was injected at the margins of induration in furuncles after simple cruciate incisions. The results were favorable. In the same year Laewen (5) described a case of fulminating furuncle of the upper lip in which after cruciate incision 90 c cm of the patient's unmodified blood was injected just beyond the area of cellulitis. The next day the infiltration and induration were found to be merged. On the third day the temperature and swelling were down. On the sixth day the induration had spread to the other side of the face. Sixty-five cubic centimeters of the patient's blood was then injected as previously. On the ninth day the process had stopped (Carp). In 1934 and in 1936 Laewen (7, 8) again urged this method for furuncles of the face and neck.

The patient's own blood is injected into the healthy skin at the infiltrated border and a general surgical opinion is made after the injection. Some doubt is thrown upon the necessity of using blood for circumjecting by the work of Hilck and Thomann (48). These investigators found that in rats and mice an effective blocking of injected tubercine could be obtained by making an incision wall of blood. Human blood is a better solution. Liners solution of dilute water diphenylmercuric iodine or a silver salt. Linhart (55) found Laewen's method successful in several cases of malignant furuncle of the face. From 40 to 80 cubic centimeters of blood was injected in a circle around the area of the infection. The method is referred to also by Schlesinger (109), Schürink (108) and Hinze (50). Hinze successfully treated three cases of carbuncle of the upper lip in this manner. In 1937 he (51) published photographs of a very severe case of carbuncle of the upper lip in which he blocked the area of infection by injecting first 80 c cm and two days later 120 c cm of autogenous blood.

In contradistinction to Laewen's autogenous blood injections with surgical incisions in carbuncles, Carp (1) made an extremely careful study of injections of autogenous blood without

surgical incisions. He treated twelve definite progressive carbuncles in non-diabetic subjects by the circuminjection of autogenous blood without accessory measures such as incision, local heat or narcotics. He used a general anesthetic and a sterile needle for each of the three to six intracutaneous and subcutaneous circuminjections. The amount of blood varied from 10 to 70 c cm and averaged 37 c cm. Carp noted that (1) the infection did not spread except in one case, (2) there was quick relief of the pain and constitutional symptoms, (3) there was no apparent reaction after the injection, (4) most of the slough liquefied, (5) the injected blood seemed to remain in the tissues undergoing gradual modification for from several days to two weeks, (6) the time for cure was probably shorter than it would have been if a surgical procedure had been used, (7) the patients showed a minimal scar at the time of discharge from the hospital, and (8) the average time for cure was twenty-three days.

The objection has been raised to this method that the injection of blood might spread infection exactly in the same way as a local anesthetic (Carp). This apparently occurred in one of Carp's cases but the spread subsided without surgery on the addition to the treatment of rest, flaxseed poultices, and roentgen ray irradiation. As a rule, the injected blood seems to prevent the spread of infection. In answer to the objection that the injected blood may become infected, Carp quite definitely (15) is stating that the injection of blood builds a wall against the spread of bacteria while coagulation (with hematoma) prevents as for the dissemination of the microorganisms.

A variation of the autogenous blood treatment of Laewen is that of Kuhn (73, 4). Kuhn believes that Laewen's injections influence the area around the furuncle more than the furuncle itself. In order to distribute the blood more evenly, Kuhn uses a vacuum cup with suction strong enough to produce hemorrhages in and around the furuncle. Narcosis is often necessary in his method. Beginning with a negative pressure of from 100 to 200 mm Hg, the suction is increased to from 400 to 600 mm Hg. The suction cup is left on for from one half hour to four hours. Kuhn has discontinued the incision of furuncles less than 7 to 8 cm in diameter. Duker (22) has had good results from Kuhn's method. He has used a vacuum as high as 1 atmosphere. Because of pain the vacuum must not be applied too rapidly. Hemorrhages are caused in and around the furuncle. Hans (43) has

warned against maltreatment of furuncles with suction apparatus. Rieder (104) formerly was accustomed to inject 1 or 2 cm of the patient's own blood into the center of a furuncle but now uses ordinary horse serum. After a wide surgical opening he tampons the wound with diphtheria antitoxin. In small furuncles 1 cm of horse serum is placed in the center of the infection.

In 1923, Friedemann (31) recommended Bier's hyperæmia in malignant furuncles of the face. For the induction of the hyperæmia a constricting band is placed around the neck for twenty-two hours daily. Of Friedemann's twenty-four cases in which this method was used, eighteen were without sepsis and showed rapid healing. Of the six cases with grave sepsis recovery resulted in three. According to Kuhn (73) the back pressure in Bier's hyperæmia is only from 50 to 100 mm Hg.

Following a series of experiments on himself in 1921 von Wasserman (119) announced histoplast, a preparation containing an extract of the live staphylococcus. This is applied locally to the furuncle. The inflamed focus absorbs the staphylococcus antigen and after a fifteen to thirty-minute reaction there is a diminution of the pain. Hofmann (54) used histoplast on seventeen cases and found it to exert a favorable influence upon early furuncles. Stalfeld (106) and Kleeberg (66) also recommended histoplast. Stajano and Hormeche (116) apply to furuncles a gauze dressing impregnated with an antistaphylococcus vaccine with a concentration of about 10,000 million per cubic centimeter which is made from cultures of staphylococcus aureus taken from furuncle pus. They claim that the use of this vaccine results in abortion of the infection in many cases and in suppuration and resolution within twenty-four hours. Others, Wiegand (11) describes a salve called staphimun which he rubs into furuncles to cause Simultan Immunisieren. Criesbach (38) uses cuticleugen guttaphast on water-proof gutta percha together with internal injections of staphylococcus.

Vaccines have long been employed in the treatment of furunculosis. They are of the autogenous and polyvalent varieties. The autogenous vaccines are prepared from cultures made from the patient's furuncle and are useful in about 50 per cent of the cases to prevent the development of other boils. Gruca (42) has had a very favorable experience in 120 cases with the vaccine treatment combined with opsonogen. In severe cases such as orbital furuncles and furuncles of the upper lip he used 500 million staphy-

lococci the first day, 750 million the second, 1,000 million the third and 1,000 million the fourth.

A hopeful aspect of furunculosis is the possible relation of the condition to an excess of carbohydrates. The severity of furunculosis in the presence of diabetes is well known but even when the urine is sugar free it is possible that a high normal blood sugar may increase the liability to furunculosis. On the basis of self-experience Pfahler (97) immediately reduces the carbohydrate diet to a minimum on the appearance of a boil. Bieber (3) who investigated the blood sugar in furunculosis has used two units of insulin daily for four days and says that in four days the furuncles disappeared. Stormer (117) reports good results in furunculosis from the use of twenty to eighty units of insulin daily.

Pavant and Huguenin (102) report a case of recurring furunculosis which was completely cured by increasing injections of first autogenous and then heterogenous blood. Lotsch (87) mentions the injection of autogenous blood in the thigh. The ingestion of beer yeast was thought to exert a favorable influence on furuncles but this method of treatment has fallen into disfavor.

In 1923 Bier (4) reported the successful treatment of twenty-eight out of thirty-five cases of furunculosis by homeopathic doses of sulphur administered internally. He recommended one tablet containing 0.1 mgm of sulphur iodide three times daily, one-half hour before meals. According to Zieler (16) Bier's method has a favorable influence on furuncles and abscesses of sweat glands. Zieler uses 0.1 mgm of sulphur iodide (sulfiodat) which is made by mixing together sulphur iodide D3 0.1 mgm and sulphur iodide D6 0.0001 mgm. Heinemann (46) reports successful experience with the Schwabe sulphur iodide D3 tablets.

Heulten (47) has found homeopathic doses of sulphur useful in furunculosis of the external auditory meatus. Freeman (9) advises $\frac{1}{6}$ gr of calcium sulphide three times daily.

Oliver (95) gives one capsule containing 5 gr of bisulphate of quinine three times daily for two days and then two capsules for two days, three capsules for two days, four capsules for two days and finally five and six capsules each for two days.

Of considerable interest is the treatment of staphylococcus infections with tin and its compounds. Tin was first recommended in 1917 by Frouin and Gregoire (34) who had observed that the tin workers of Brucce, France, seldom suffer

from carbuncles and that tin powder is a popular remedy for the disease in that district. After various experiments they claimed that tin chloride or its oxide when added to ordinary bouillon culture medium strongly inhibits the growth of the staphylococcus under anaerobic conditions, under aerobic conditions the growth of staphylococcus is not hindered, but the virulence of the organism is diminished. The intravenous injection of the chloride or hydroxide of tin into rabbits twelve hours after the intraperitoneal injection of the virulent staphylococcus retarded the death of the animals for several days. Frouin and Gregoire conclude (1) that metallic tin and tin oxide were absorbed by the digestive tract, (2) that tin was innocuous to the ingesting animal, (3) that tin had a beneficial effect on staphylococcus septicemia and (4) that the bactericidal action of tin and its compounds justifies its use for patients with staphylococcus infections. More recently Rio (103) concluded after experiments that the action of tin, the protoxide of tin and the bisulphate (?) of tin on the staphylococcus *in vitro* is extremely powerful. Poliakoff (90) investigated the ability of the blood to destroy bacteria following the administration of tin in the form of stannoxyl using the method of Wright. He found that at least in healthy persons stannoxyl causes no increase in the power of the blood to destroy bacteria.

Frouin (3) studied the effects of tin administration in animals. He found tin in the urine twenty-seven days after its administration by mouth had been stopped. His experiments apparently justify the use of stannoxyl in staphylococcus infections.

Gregoire and Frouin (37) produced stannoxyl, a compound composed entirely of metallic tin and tin oxide. They state that they used it successfully in fifty cases of furunculosis and believe that it has a specific action upon the staphylococcus. Other clinical reports are not lacking. Hudelo (56) reported six cases of furunculosis cured by stannoxyl. In one of these a case of axillary adenitis vaccines had failed to cause improvement. Bruhl and Michaux (7) used for three years with favorable results intramuscular injections of colloidal tin. Phocas (98) reported that cases with suppurating wounds which gave staphylococci in cultures were made culturally negative by the administration of tin. Compton (16) successfully treated five cases of furunculosis, one case of acne and one case of infective dermatitis with stannoxyl. The dose of stannoxyl is 0.5 to 1 gm. (four to eight tablets) daily. Com-

pton's patients took in all from 0 to 410 tablets. Morland (92) after acquiring his third carbuncle took six tablets of stannoxyl. The infection began to diminish on the second day and the lesion disappeared without opening in ten days. Hudelo, Montlaur and Drouin (57) believed that the tin should be in a lipid medium in this form it seemed to be a specific against furunculosis. In 1925 Poliakoff (90) reported in detail five cases of furuncles treated successfully with stannoxyl. Levy (83) praised the action of tin in the form of hordeolum. In the cases of forty children under twelve years of age who were suffering from hordeolum he gave from one half to one tablet two to three times daily by mouth.

The use of manganese in infections has attracted considerable attention in the British literature. Manganese is not bactericidal *in vitro* (Martindale 89) and its beneficial action is thought to be a vital one as it is believed to act as an oxidizing catalyst or oxidase. Watson Williams (120) used manganese in the form of one per mill colloidal suspension and in a dose of 0.5 to 5 cc. He reported nine cases to show that manganese powerfully increases the resistance of the tissues to antrax as to any other local infections. In 1919 McDonald obtained excellent results from injections of manganese butyrate in the treatment of whitlow, septic perforating ulcer of the foot, double quinsy, vaccination erysipelas and multiple mastitis. He praised its action in boils, carbuncles and gonococcal urethritis. Young (14) speaks of the dramatic results from intramuscular colloidal manganese injection and reports a case in which the colloidal manganese was administered by mouth. To an infant of eighteen months with boils he gave 4 minims of colloidal manganese in water three times daily by mouth after food. At the end of three days the development of boils was arrested but the dosage was increased to 5 minims three times a day for three days to 6 minims three times a day for three days and finally to 7 minims three times a day for three days.

Wilmoth (1) believes that 20 gr. of sodium citrate four times a day will liquefy the secretion.

Ferguson (6) is of the opinion that mercury stimulates the production of white blood cells. He reports about fifty cases of furunculosis benefited by from one to three injections of 1 gm. of mercury salicylate given intramuscularly. Harris (44) reports a case of nasal furuncle which had been incised with a resulting septicæmia. The condition was successfully treated by the injection of mercurochrome. Jarrell (9) had a case of

blood stream infection due to a carbuncle. Blood culture showed staphylococcus aureus. Two days after the intravenous injection of 15 c. cm. of 1 per cent mercurochrome the blood culture was negative. Nine days later pneumonia developed and again the blood culture was positive. Twenty cubic centimeters of 1 per cent mercurochrome were then given intravenously. Recovery followed.

Klingmueller (68) uses subcutaneous injections of olobutin (1 to 10 per cent oily turpentine solution).

Non specific protein therapy has been advocated. Aolan has been used. Ziemann (1) employed intravenous injections of yatrien casein, an antiseptic and bactericide composed of iodine (five parts) oxychinolin (eight parts) and sulphonic acid (seven parts) combined with sodium bicarbonate to neutralize the acid radical. It may be used externally orally intravenously or subcutaneously.

Increase of elimination by laxatives increase of fluid ingestion and bodily and local rest are to be advised.

When incision or injection is decided upon in the treatment of furuncles and carbuncles a choice of anæsthetic must be made. Ethyl chloride recommended by Franke (7) is useful but must be properly applied to produce a good anæsthesia and to prevent the very marked danger of gangrene. The injection of a local anæsthetic is approved by Freeman (29) and Farr (25) but is disapproved by de Takats (19). Axhausen (1) uses novocain before glow needle therapy. Sometimes it is possible to block the sensory nerves supplying the infected area by local anæsthesia. For anæsthesia of lip and nose furuncles Klinger (67) has injected 1 per cent novocain into the supra-orbital nerves. Wilmoth (122) uses hyoscine morphine anæsthesia. Nitrous oxide or ethylene are probably the best.

Griffiths (39) outlines his treatment of carbuncles as follows:

1. *General treatment* (a) measures to increase the patient's resistance to the spread of infection (b) elimination of toxins (c) induction of sleep.

Local treatment (a) relief of pain (b) removal of necrotic tissue (c) arrest of infection in surrounding parts (d) epithelization of raw surface after separation of sloughs.

Chan (14) outlines the following treatment of lip furuncles:

Mild cases (1) heat (2) rest (3) prohibition of speech (4) fluid nourishment (5) with the appearance of fluctuation a small incision with the crutery.

Transitional cases (1) autogenous blood injections (2) simple central cauterization (3) hyperæmia (4) special heat.

Severe cases (1) autogenous blood injections (2) hyperæmia (3) splitting thermocautery incision (within the infected area).

Carp (13) studied 153 cases of carbuncles at the Presbyterian Hospital, New York, in an effort to compare the merits of four different methods of treatment viz (1) X ray irradiation plus accessory therapy (2) surgery plus accessory therapy (3) conservative treatment and (4) blood circuminjection without accessory treatment. Because of the dissimilarity of carbuncles and the lack of a definite scheme of tabulation it is extremely difficult to compare methods of treatment. He presents the following conclusions for consideration:

1. In large carbuncles diabetic and non diabetic the treatment of choice is radical surgery.

In small superficial carbuncles and in some large carbuncles including those of the face X ray therapy as an aid to conservative therapy (poultices carbolization etc.) has given good results. If however improvement does not occur in from three to four days other measures (surgery circuminjection of autogenous blood) are indicated.

3. In diabetic carbuncles the prompt establishment of free drainage is essential to prevent spread of the infection. X ray therapy without surgery is contra indicated.

4. Circuminjection of autogenous blood may be used in selected cases and is a valuable adjunct to the treatment of accessible spreading infections by any other method.

5. There has been no proof in the clinical cases analyzed in this series that X ray therapy alone effected a cure. Reports in the literature seem to confirm this experience.

SUMMARY

Each furuncle and each carbuncle is a problem in itself. There are no inflexible rules governing the treatment of these types of infection. In but few surgical ailments is a like amount of judgment and experience required to make an accurate diagnosis of the type of the lesion its state of progress and the most appropriate form of treatment. The high morbidity of furuncles and carbuncles and the mortality of the latter particularly those on the face demand the most serious thought and discrimination in the choice of treatment. The surgeon must have a thorough appreciation of the underlying pathology and

physiology. He must keep in mind the risk to the patient, the amount of pain, and the duration and expense of the treatment. In our present state of knowledge the safest treatment is that which best brings about localization of the infection if possible, effective drainage and rapid healing. Many of the newer methods proposed are well worth study, but have not yet been used in a sufficient number of cases to prove their value.

Surgeons will await with interest further reports on autogenous blood circuminjection and the criteria which govern its use. The administration of tin is so simple that it would doubtless be widely adopted if more recent and more abundant reports of its usefulness were available. The danger of traumatism to necrotizing infections from premature or ill-advised incisions has become a matter of more general knowledge.

In the case of a bundle dissection and a dissection the treatment of choice is radical surgery. (1) Most frequently a case is treated by conservative measures (hot water dressings, often in the form of a hot water bath) until the discharge is spontaneous or until fluctuation indicates a need for drainage. In certain cases a bundle is removed by means of a justifiable procedure. For example, if the discharge is not spontaneous, it is necessary to remove the bundle. If the discharge is not spontaneous, it is necessary to remove the bundle. If the discharge is not spontaneous, it is necessary to remove the bundle.

- 69 KNOCH Med Klin 1924 xv 249
- 70 KNOCH F Med Klin 9 4 v 83
- 71 KRITZLER Deutsche med Wchnschr 192 xiii 866
- 72 KUBIN F Med Klin 19 6 xvii 1957
- 73 Idem Muenchen med Wchnschr 927 l xiv 45
- 74 Idem Ibid 19 7 l vi 143
- 75 LAUTNER A Zentrallbl f Chir 1923 l 1018
- 76 Idem (Quoted by Crisp) Ibid 9 3 l 1468
- 77 Idem Ibid 9 4 li 6
- 78 Idem Klin Wchnschr 9 6 2 64
- 79 LAQUERRIERE A J d radiol et d el trol 19 1 84
- 80 LEE and DOWNS Practitioner 19 5
- 81 Idem South M & S l 425
- 82 LEFFINCE A Paris med 9 44
- 83 LEVY S Deutsch med Wchnschr 19 6 li 303
- 84 LEWIS I Ann Su 9 3 l viii 649
- 85 LINHART W Zentrallbl f Chir 1924 li 1501
- 86 LIVINGSTON F M Ann Surg 1926 l iv 663
- 87 LOTSCH I Klin Wchnschr 9 1 9
- 88 MARCUS I Therap d (egenw 1) 7 lxviii 42
- 89 MARTINDALE (Quoted by Watson Wilham) l tri Pharmacopeia 19 8 Vol p 197
- 90 MELCHIOR I Beitr z klin Chir 19 6 c v 65
- 91 MORIAN R Deutsche Ztschr f Chir 9 5 c c n 45
- 92 MORIAN A J Lancet 1918 143
- 93 MORRISON A l Brit M J 1924 l 703
- 94 NORRIS F H B J Laryn ol & Ot l 1927 xlii 105
- 95 OLIVER E A Personal communication
- 96 PERRET C A Schweiz med Wchnschr 925 l 469
- 97 PFAILLER G F Atlantic M J 925 ii 586
- 98 PHOCAS Bull et m m Soc de chir de Lar 1917 xliii 1458
- 99 PILLIAOIS S Nederl Tijd hr Geneek 19 5 ii 2525
- 100 POTTER H Personal communication
- 101 PULAY F Med Klin 1921 xvii 353
- 102 RAVANT I and HUGUENIN R Ann de dermat et syph 926 ii 486
- 103 RICO J T Compt rend Soc de biol Par 19 4 xc 1008
- 104 RIEDER W Zentrallbl f Chir 1927 l 10 4
- 105 ROSENAU W Deutsche med Wchnschr 19 6 li 537
- 106 SAALFELD F Med Klin 192 vi 5 7
- 107 SABOURAND R Ann de dermat et syph 9 5 1 4 7
- 108 SCHIRIAU L A Arch Ca 9 7 xv 1 65
- 109 SCHLEINGER A Zentrallbl f Chir 9 4 l 83
- 110 SCHULTE F Muen l n med Wchnschr 926 lxviii 47
- 111 SCHULTE A Deutsche m d Wchnschr 19 2 l iii 1517
- 112 Idem Muenchen med Wchnschr 9 4 l vi 756
- 113 SCHUTZ J Muenchen m l Wchnschr 1925 l viii 988
- 114 Idem Ibid 9 6 lxviii 1 35
- 115 SHIBUYA H Die t he m d Wchnschr 19 3 lix 1158
- 116 STRAUSS C and HERNACHEZ E An de fac de med d Univ d Montideo 19 6 xi 40
- 117 STORER A Illn Wchnschr 19 5 iv 477
- 118 TURNER A l and FRANCHI L l J Laryn ol & Otol 19 6 xli 73
- 119 WASSERMAN A VON Muenchen m d Wchnschr 19 2 l 596
- 120 WATSON WILLIAMS I Practitioner 19 10 c 375
- 121 WIEGAND O Deutsch med Wchnschr 1924 l 15 4
- 122 WILMOTH A D Kentucky M J 1927 xxv 4 4
- 123 WOLFER J Personal communication
- 124 YOUNG M L Brit M J 9 6 115
- 125 ZECHLIN T Muenchen med Wchnschr 19 6 lxviii 1742
- 126 ZIEGLER K Deutsche med Wchnschr 9 6 li 701
- 127 ZIEMANN H Med Klin 9 4 v 677

Hahn E V S nus Pe an (R d ble Blood
 T mo of th C n um) It Org n nd It
 Rel ti n t Hæmangi ma and Abn m l
 A te i en us Commun cat on R po t of
 C e tr / S g 9 8 3

S nus peri ran is the same most frequently used in European literature to designate blood cyst or hæmangioma of the pericranium communicating with a frontal albioid sinus by one or more abnormal foramina in the skull. The condition was discovered and named by St Meyer.

Clinically it is characterized by a soft compressible fluctuating swelling that increases in size by the dependent posture causing crying and slight compression of the jugular veins. In some cases the lesion may not be apparent unless some of the factors that increase intracranial pressure are active. The mass may be bluish and may be easily mistaken for a meningeal. The roentgenogram generally shows an area of refraction in the skull.

Meningeal is the only symptom. The lesion may occur at any age. It is relatively unusual but doubtless has sometimes been described under other names. The author urges the first use of the name sinus perirhanis. In a review of the literature he has able to find eighty cases. In this article he reports a case in which surgical removal effected permanent cure. Electrocoagulation was used to control bleeding from the emissary veins.

Hahn suggests that the lesion may originate by the formation of abnormal dilatation of communication. According to his theory a significant trauma may be the predisposing factor. The small fistulae once established cause dilatation and tortuosity of the vessels subjected to the abnormal pressure. Gradually the fistulae form a series of vascular channels appear in the bone and arteries cannot be differentiated. Bone absorption follows as a result of dilatation of the emissary veins and the process spreads into the diploic veins causing constant pressure.

The temperature is irregular convulsions frequently occur and there is marked anorexia and difficulty in nursing due to the pus in the nostril

The lesion may heal with or without the persistence of discharging sinuses or the development of secondary purulent foci or death may result before secondary foci have time to develop

The author reports two cases both of which were due to the staphylococcus aureus

J H H GARLICK M D

EYE

Cohen M Killian J A and Kamner M Comparative Chemical Studies of the Ocular Fluids of the Cerebrospinal Fluid and of the Blood
Arch Ophthalm 19 8 111 39

The depression of the freezing point was determined in nine specimens of vitreous filtrate nine specimens of aqueous humor and three specimens of cerebro spinal fluid of oxen all taken immediately after death and from the data obtained the osmotic pressure and molar concentration were calculated. The freezing point depression and osmotic pressures were found to be almost identical. The molar concentrations being similar it is a problem to explain why the vitreous has a greater viscosity than the aqueous humor or cerebro spinal fluid

The viscosity of blood serum vitreous filtrate aqueous humor and cerebro spinal fluid of the ox and of water were determined. Aqueous humor and cerebrospinal fluid have viscosity slightly greater than the viscosity of water and with rising temperatures their curves decline parallel with that of water. The viscosity of vitreous filtrate approximates that of blood serum. Blood contains 30 times more protein than vitreous filtrate and the latter has a protein content comparable with that of aqueous humor and cerebrospinal fluid. Hence the protein contents of these fluids cannot be the sole factor determining their viscosity

The calcium content of vitreous filtrate and of aqueous humor is greater than that of cerebrospinal fluid. In a comparison of certain inorganic compounds in vitreous filtrate aqueous humor and cerebrospinal fluid of oxen it was found that the average content of chlorides and sodium in the cerebrospinal fluid is greater than the average content of these substances in aqueous humor and vitreous filtrate. The ocular fluid contains more potassium and inorganic phosphorus than the cerebro spinal fluid and the concentration of chlorides sodium and inorganic phosphorus in the aqueous exceeds that in the vitreous filtrate

In conclusion the authors state that because of the lack of uniformity in the concentration of cations and anions in these three fluids it is doubtful whether we can explain the origin of all of these fluids by a simple physical process of dialysis from the blood plasma unless we postulate a difference in the permeability of the separating membranes

LYNN A CORPS M D

Cosgrove K W and Hubbard W B Acid and Alkali Burns of the Eye
Ann Surg 1928
LXXVII 89

In a study of the treatment of acid and alkaline burns of the eye the authors performed experiments on rats and rabbits. The irritants used were sulphuric acid nitric acid phenol sodium hydroxide and ammonium hydroxide. Their findings indicated that regardless of the concentration of the chemical and the length of time that elapses before treatment is given the best results are obtained from irrigation and that neutralization causes definite damage

VIRGIL WESCOTT M D

Rosenow E C Focal Infection and Elective Localization in the Pathogenesis of Diseases of the Eye
Ann Otol Rhinol & Laryngol 19
XVI 853

The author reviews the more important clinical and experimental studies on the pathogenesis of non syphilitic and non tuberculous intrinsic infections of the eye and the requirements for the successful application of the methods of study. The method of intravenous injection of primary (often mixed) or freshly isolated pure cultures of material from foci of infection has led to a better understanding of how these seemingly harmless localized areas of infection often small and in obscure places cause ocular manifestations and by this method the causative organisms usually responsible have frequently been isolated

In the light of the newer knowledge foci of infection wherever found should be looked upon as areas where bacteria and their toxic products are afforded favorable conditions for entrance into the blood or lymph stream where they may acquire or maintain a peculiar or relatively high invasive power. They make for a forced relationship between the parasite and host

The good effects commonly noted following the removal of foci of infection support the experimental findings justify a thorough consideration of their existence and call for removal or cure as far as possible of focal infection in every obscure clinical case. The successful application of the methods of study while simple require close cooperation between the bacteriologist and clinician. The experimental results indicate clearly that those lesions in the eye which are associated with exudation even though slight are usually due to the localization of microorganisms while the milder manifestations may sometimes be due to the absorption of toxins which are formed in the focus or elsewhere and reach the eye in the blood stream

Localization of the bacteria in the eye may sometimes be accidental and a part of other disease manifestations. However the animal experiments now amply corroborated indicate clearly that in most instances localization and growth are due to peculiar acquired or inherent properties within the bacteria themselves and the power of the microorganisms to localize electively and that this is due in part to the

these fowls is re injected into rabbits and mice it may attack the lens of the young *in utero*. It has no effect upon the lens or other orbital contents of the mother. Davis suggested that a solution of the emulsified lens of an animal injected into man might cause the active formation of antihodies which will cause the absorption of lens opacities.

The author treated the following types of cataracts according to Davis' directions: traumatic, two; cortical, fifteen; sclerosed nucleus, five; diabetic, four; and cataract complicating glaucoma, one. In fourteen cases the cataract progressed and in thirteen no change in its progress was noted. In no instance was there any absorption of the cataract or improvement of vision.

LYMAN A. COPPS, M.D.

Sowers, A. Retinitis Punctata Albescens. *Am J Ophth* 1928 xi 354

Sowers reports two cases of retinitis punctata albescens in members of a family described by Lauber seventeen years ago. In both cases good vision had been retained but there was hemeralopia. The fundus picture was practically unchanged.

The condition is familial, congenital and bilateral and occurs in negroes as well as white persons. Consanguinity is an important factor in its development. Hemeralopia is found in two thirds of the cases.

The author discusses the differential diagnosis. He states that treatment with arsenicals and mercury is said to be beneficial.

SAMUEL A. DURE, M.D.

Jones, L. W. Retinitis with Massive Exudates. *Am J Ophth* 9 8 xi 351

The author reports a case of retinitis with massive exudate and small changes in the blood vessels in the right eye of a boy, nine years of age, whose only complaint was a swollen cervical gland. The retina appeared to be detached along the course of the inferior temporal branch. The general physical examination was entirely negative.

Following a review of the literature, Jones states that in von Hippel's disease the prominent feature is the blood vessel change, whereas in Coat's disease it is the exudate, but the two conditions seem to be very similar. In conclusion, he cites several cases in which improvement seemed to follow the injection of tuberculin, though there was no visual change.

SAMUEL A. DURE, M.D.

Paterson, J. A. The Etiology, Diagnosis and Prognosis of Optic Neuritis. *Brit M J* 1927 i 863

Ronne, H. The Nomenclature of Optic Neuritis. *Brit M J* 1927 ii 866

Ballantyne, A. J. Optic Neuritis as an Aid in Diagnosis. *Brit M J* 1927 i 869

PATERSON states that by the term optic neuritis the oculist usually means a certain type of morbid change which he sees in the optic disk. Oedema and

inflammatory changes involving parts of the optic nerve rather than its distal end he calls retrobulbar neuritis.

In Paterson's opinion the classification of cases of optic neuritis should be based upon a study of the fundus as a whole and not on the ophthalmoscopic picture alone. When the condition is studied from this angle the cases associated with intracranial pressure will be found to form a class by themselves not only on account of the disk changes but also on account of the absence of pronounced visual disturbances in the early stages.

In the study of the disk changes the use of the Gullstrand ophthalmoscope is of the greatest importance. Any noteworthy defect of central vision should be carefully investigated. In the determination of the site and extent of the intracranial disturbance a careful study of the visual fields may be of great aid. The results of lumbar puncture, X-ray examination, the Wassermann test and the neurological examination must also be taken into consideration.

Cases of increased intracranial pressure with changes in the disk should be operated upon early in order that the patient may have the best possible chance of retaining vision. When once the stage of optic atrophy is reached operative treatment is disappointing. Medical treatment seems to offer a prospect of cure only in definitely luetic cases. Prolonged increased intracranial pressure is caused mainly by brain tumors, cysts, abscesses, gummatous or tuberculous nodules, intracranial aneurisms, extravasated blood, sinus thrombosis, meningitis and deformities of the skull.

Optic neuritis not accompanied by increased intracranial pressure is due primarily to inflammatory processes in the nerve or its sheath which may lead directly or indirectly to changes in the disk. This type does not present the transparent glassy swelling of the papilla so characteristic of the oedema accompanying increased intracranial pressure. The disk rapidly becomes less transparent and the lamellae become invisible. The roots of the vessels are veiled by swollen nerve fiber tissue. This veiling extends some distance from the disk. The color of the disk is more intensely red, the veins are apt to be distended and the arterioles are small. Central scotoma with failure of vision is common and depends upon the presence of inflammatory foci in the course of the nerve. In a large group of cases the condition is due to toxins in the blood and the course and prognosis seldom appear to be modified by the presence or absence of visible changes in the disk. In the early stages these changes are usually absent and the diagnosis must be made from a careful study of the visual disturbance, the history and the general symptoms. As a rule only one eye is affected.

Among the well established causes of retrobulbar neuritis disseminated sclerosis holds first place. There are a large number of acute cases whose origin is not known. Retrobulbar neuritis is believed by many to be due to involvement of the optic nerve

be manifested both by acute diseases of the optic nerve and by quite slowly developing atrophy resembling intoxication amblyopia. The prognosis in the group of diseases under discussion is rarely quite hopeless but varies in accordance with the etiology and the clinical type of the condition. A common finding in these conditions is temporal pallor of the disks.

The anatomical basis of the acute forms is doubtless an irregular plaque formation in the optic nerve. Studies of disseminated sclerosis, myelitis, and optic atrophy, retrobulbar neuritis and retrobulbar neuritis in cases of thrombosis have shown that the point of special interest is the relation of the axon cylinder and medullary sheath. In disseminated sclerosis and in optic nerve lesions the medullary sheath is destroyed before the axon cylinder.

A disease characterized by a tendency to attack the macular fibers should be termed retrobulbar neuritis, but it must be borne in mind that not every case with normal disk and central scotoma is the field of retrobulbar neuritis.

The peculiar condition known as choked disk with sudden mental blindness usually calls for immediate operative treatment by trephination but there are cases in which recovery or improvement of vision occurs either spontaneously or after non-operative treatment.

conditions and (2) optic neuritis or neuroretinitis of renal disease

The optic neuritis of meningitis differs from cerebral tumor in being less prominent and more diffuse but in tuberculous meningitis the disk swelling is apt to resemble that of intracranial tumor being higher and more circumscribed

The optic nerve affection which has been most frequently reported as being found in association with pregnancy is chronic retrobulbar neuritis but there seems to be considerable controversy regarding the picture and cause of this condition. Much has been written on the rôle played by intranasal conditions in its etiology but there is as yet no agreement with regard to the following problems (1) the type of nasal disease which gives rise to optic neuritis (2) the clinical characteristics of optic neuritis due to disease of the nose and nasal sinuses (3) the period at which operative intervention is indicated (4) the operation of choice and (5) the manner in which operation causes improvement or cure

There is no characteristic defect of the visual field which distinguishes optic neuritis of nasal sinus origin from other types but a careful investigation of the visual field may exclude pituitary tumor and other conditions giving rise to characteristic changes in the visual fields

Multiple sclerosis probably accounts for a larger percentage of cases of retrobulbar neuritis than diseases of the nasal sinuses but since optic neuritis may be an isolated condition it may be necessary to wait a considerable time before the diagnosis of multiple sclerosis is confirmed by other nervous manifestations. Hensen has emphasized the importance of the duration of the central scotoma in retrobulbar neuritis due to multiple sclerosis

With regard to the question of the operative treatment of these cases Ballantyne is inclined to adopt a conservative attitude. He believes that it is usually safe to recommend medical treatment for from six to eight weeks. If improvement is not noted and the condition of the nose is suspicious at the end of that time operation is justified

LESLIE L. MCCOY, M.D.

EAR

Fraser J. S. A National Investigation of Otosclerosis. *Proc Roy Soc Med Lond* 1928 xxi 387

Fraser finds otosclerosis in about 10 per cent of his patients and believes it is more common than statistics indicate. On account of the great loss of national efficiency for which it is responsible he urges that a national investigation of the condition be made

JAMES C. BRASWELL, M.D.

Lillie H. I. General Sepsis of Otitic Origin Treated by Blood Transfusion and Germicidal Dye. *Arch Otolaryngol* 1928 vii 30

The author reports twelve cases of general sepsis of otitic origin treated by blood transfusion with or

without the intravenous injection of a germicidal dye. He is not prepared to say whether the combined method or blood transfusion alone is preferable as the patients who were treated with blood transfusion alone seem to progress as well as the others

Untoward results have been reported from the use of the methods under discussion but the danger can be reduced to the minimum if the services of an expert hematologist or biochemist are obtained. Internists and house officers are usually not sufficiently experienced in the use of these specialized therapeutic measures

From his own experience and that of others the author concludes that blood transfusion and the injection of a germicidal dye as adjunct therapeutic measures are rational if the cases are properly chosen and the agents properly prepared and administered. The supportive effect of blood transfusion shortens the convalescence and the germicidal dye has a curative effect

Lillie neither advocates nor defends the use of these measures but believes they have a place in the management of sepsis of otitic origin

NOSE AND SINUSES

Hempstead B. E. Intranasal Surgical Treatment of Chronic Maxillary Sinusitis. *Arch Oto laryngol* 1927 vi 426

In the technique used by the author for the intranasal surgical treatment of chronic maxillary sinusitis anesthesia is induced by means of cocaine epinephrine mud on applicators placed in the region of the anterior ethmoidal nerves and the sphenopalatine ganglion. A pledget of cotton soaked in a 10 per cent solution of cocaine is placed under the lower turbinate. The mucous membrane at the anterior end of the lower turbinate is injected with a 0.2 per cent solution of cocaine

An incision is then made through the anterior attachment of the lower turbinate so that the latter can be broken upward and the lower meatus exposed to full view. If a flap is desired to cover the edge of the window the mucous membrane together with the perosteum is dissected free at the time. The Wilhelmsky trocar is inserted about half way back and the wall is broken through. This allows the introduction of the cutting forceps. The window is enlarged posteriorly as far as desired. With a modified Kerrison punch the window is brought far forward. If it is sufficiently large there is little likelihood of its closing particularly if the flap of perosteum and mucous membrane is saved and laid over the raw edges. An effort is made to make the window level with the floor of the nose. The edges are smoothed with either the rasp or the hand burr. The antrum is then cleaned with the suction tube with the least possible trauma. The curette is not used in the antral cavity. A fair view of the greater part of the cavity is obtained by introducing a nasal speculum

ly used. In cases of smaller lesions the nodes of the neck are removed on the following day if possible before a local reaction occurs. If the mouth lesion is the site radium is used over the neck and the nodes are removed as soon as the local condition permits. In the treatment of cancer of the jaws surgical diathermy is employed for the local lesion. The side of the neck is removed when the lesions are extensive and the cheek is involved.

NECK

Van Dine Wilderbe L. D. p. A tinomycosis of the Neck and Mediastinum. *J. Otol. y. g. l.* 9:8 5

With the extension of the face the most frequent site of infection is the upper half of the neck. The tongue and tonsils are often attacked simultaneously. A tinomycosis of the mediastinum is always secondary. The outgrowth of penetration of the fungus according to Bollinger was first described in 1875 as the growth of the tonsils or the air or food passing. When the mediastinal dome has been invaded the infection if it persists lifts the subaponeurotic cellular sheath of the greater and lesser pectoral muscles and may tend to form a vast rabbit ear abscess in the axillary region.

The primary a tinomycotic lesions are characterized by the presence of yellow bodies of various sizes which have a grossly granular appearance. When these granular bodies are examined under the microscope after being crushed between two slides the findings differ according to whether the amount of material in the clinical specimen or with the culture is small. In the first case the bodies consist of mycelial filaments with here and there small nodular swellings which strongly resemble spores. After cultivation the swellings are absent and only the filamentous mycelium is found.

The a tinomycotic module often breaks down. When this occurs the characteristic yellow granular bodies may be observed. The diagnosis may be confirmed by making a culture on Sabouraud's medium (glucose maltose medium) or may be based on the complemented variation reaction. The serum of the patient with a tinomycotic parasternal cysts specific bodies.

A tinomycosis of the mediastinum has a much more grave prognosis than cervical actinomycosis because of the dangerous extension to the adjacent organs. It has a certain tendency to progress toward the thorax. When it does so extend the aortic thoracic aneurysms and an abscess with osteitis is formed.

The surgical treatment is largely simple if the disease extends to the endothoracic organs. If the lung is damaged in order to prevent it by a surgeon who can expect a pulmonary abscess or gangrene will be necessary.

The treatment consists in the opening of the focus by simple incision and mechanical removal of tissue mass with a sharp curette or scissors followed by

tamponment of the cavities and fistula with iodoform gauze

Superficial foci may be cured by potassium iodide alone. Potassium iodide does not destroy the fungus but acts rather on the neoplastic tissues and through them upon the parasitic foci causing the latter to break down and thereby quickly establishing drainage to the surface.

In some cases pneumectomy has given good results

MORRIS H. KAHN, M.D.

Sistrunk, W. E. The Technique of the Removal of Cysts and Sinuses of the Thyroglossal Duct. *Surg. Gynec. & Obst.* 1918, 26: 109.

Sistrunk explains the formation of cysts of the thyroglossal duct on the basis of an abnormality in the development of the duct following the descent of the thyroid gland. When the duct fails to close completely and the foramen cecum fails to remain open, a cyst is formed by the retained secretion. The cyst is always in or near the median line.

In the technique used by Sistrunk for the removal of cysts and sinuses of the thyroglossal duct, the course of the sinus tract is outlined with injected methylene blue. The cyst is then exposed through a longitudinal excision and dissected free from the hyoid bone from the center of which a small segment is removed. The foramen cecum is then located and the duct and surrounding tissues are corded out from below upward to the foramen.

The author gives exact directions for determining the course of the duct. This method obviates the risk of fragmentation of the duct with retraction and loss of segments.

Hertzler, A. E. The Pathogenesis of Goiter Considered as One Continuous Disease Process. *Arch. Surg.* 1918, 26: 61.

Hertzler distinguishes two main types of goiter: the colloid goiter sometimes called adolescent goiter, and the toxic goiter, but he states that all goiters may well be considered as stages and variations of a single thyroid disease.

The colloid goiters show large acini filled with colloid. In the interstitial walls there is frequently cellular activity. These areas become encapsulated and the cell conglomerations may or may not show a lumen. At this stage the patient may or may not present clinical symptoms. Macroscopically the surface of the gland may be smooth or bosselated. If the bosselations become deeper on palpation the gland may appear as an adenoma though the histological structure is not changed.

The picture of toxic adenoma differs from that of the innocent stage of the goiter only in the greater vascularity. Various areas of the gland are still of the old colloid type. In other areas the cellular activity is marked. The acute toxic stage develops usually in persons previously unaware of the presence of a goiter. In histological sections colloid areas may still be found. If there are symptoms of toxicity there will be areas of proliferation and

if eye symptoms are present there will be papillated areas. The chief change as compared with the toxic adenoma is that the gland becomes firmer and more sensitive to pressure.

In conclusion the author says: medical treatment during all except the early stages of goiter is as deadly as medical treatment for cancer.

I. S. MODERN, M.D.

Sager, W. W. Exophthalmic Goiter Pathological Change as a Result of the Administration of Iodine (Lugol's Solution). *Arch. Surg.* 1927, 25: 88.

Iodine in the form of Lugol's solution was introduced by Plummer in the pre-operative and post-operative treatment of patients with exophthalmic goiter in 1902. By differentiating adenomatous goiter with hyperthyroidism and exophthalmic goiter, Plummer had made it possible to avoid the danger of indiscriminate use of iodine and its subsequent unsatisfactory results in cases of adenomatous goiter. In an article published in 1925 Plummer says: "While preparing an article for publication in *Oxford Medicine* I suddenly became convinced that there are many reasons why the action of iodine might have been misinterpreted. The chief of these was the lack on the part of observers of a correlation of the fluctuating data throughout the course of the disease on a clear-cut hypothesis of the presence of two factors, whether or not the factors are two products of the thyroid gland." He states further: "Many reactions that might follow the administration of iodine were considered. The complete iodination of the thyroxine molecule in the tissues of the body seemed possible but not probable. That the iodine might lead to more complete iodination of thyroxine in the gland or that it might block its discharge seemed more probable. Irrespective of the degree of stimulation the thyroid will not elaborate much of the abnormal secretion if a sufficient amount of iodine is available."

In this series of cases the epithelium of the acini, the connective tissue, blood vessels and lymphocytic cells of the stroma and the colloid found in the acini were studied and the results with and without the administration of iodine were compared. Paraffin sections of 50 thyroids were studied; 100 of the patients had received Lugol's solution and 100 had not.

The most noticeable change in the thyroids after the administration of iodine is the increase in the amount of colloid. Such increase gives a histological picture similar to that of colloid goiter in which there are hyperplastic areas. The colloid also stains lighter and does not appear vacuolated as in cases of exophthalmic goiter.

Marine and Williams in 1908 published the results of a study of seventeen patients who had been treated with iodine pre-operatively. They came to the conclusion that there was an increase in the amount of colloid following iodination.

The hyperplasia noticeably decreases after the administration of iodine. The word hyperplasia is used to describe a condition in the parenchyma of the gland in which the number of cells appear to increase although this was not proved.

In the cases in which iodine was given and in those in which it was not given the amount of colloid increased as the amount of hyperplasia decreased as pointed out in 1908 by Marine and Williams as true in general for thyroid glands.

The columnar epithelium also changed after the administration of iodine. It was not present in as large quantity. There was a decided increase in the amount of cuboidal epithelium lining the acini a certain variable percentage of which was low cuboidal and some of which was so flat as to lose even the characteristics of low cuboidal epithelium. The cells being low in proportion to their width at the base.

In the study reported the amount of connective tissue as compared with the amount of parenchymatous tissue and colloid seemed to be decreased after the administration of iodine.

The lymphatic vessels in the gland presented the same anatomical picture after the administration of iodine as when iodine was not given. They were present in small nodes or without organization.

The blood vessels seemed smaller by comparison although this could not be determined with certainty since the change if any was so small as to require the larger arteries and exact comparison of the same blood vessel before and after the administration of iodine.

Marine and Lenhart in a discussion of the question which takes place in the thyroid in cases of hyperplasia concluded that the thyroid gland is not affected by iodine described anatomical changes that cannot be distinguished from the change which takes place after treatment with iodine except that after treatment with iodine the hyperplasia seems to show a greater tendency to disappear without leaving any definite trace of its presence.

Bowing H H M Lignant Tumors of the Thyroid Gland Treated by Operation Radium and the Roentgen Rays Am J R 15 11 98

5

In the application of radium (salt) or radon through drainage tubes the strength should be about 50 mgm or mc. The filtration should be equal at least to 0.5 mm of silver and when possible 1.0 mm of brass should be used. The wall of all of the rubber drainage tube should be at least 1.0 or 2.0 mm thick. The time of application varies being dependent upon the presence or absence of important structures such as blood vessels and nerves in the treatment field. Moreover if the applicator is just beneath the skin the time should be reduced at least one third or one half the average time. When surgery is contraindicated especially in the nodular fixed tumor radium needles (salt) should be buried through the mass the average dose mentioned here seems safe. If the tumor is of a diffuse medullary type radium surface packs or roentgen ray treatment should be chosen. Surgical interference in this type should be limited to the removal of a specimen for study. The factors for radium surface treatment seem safe but as erythemas have occurred the time factor should be reduced to ten or twelve hours. In general the surgeon should carry his procedure as far as safety will permit. The radiologist should give full cooperation at the time of operation and afterwards. If radium is not available roentgen ray therapy is indicated as a postoperative measure.

This brief study emphasizes that malignant goiters should be excised if possible and decompression followed by irradiation performed when necessary. In selected cases the removal of adenomatous parts of the thyroid seems to be a satisfactory procedure for the prevention of malignant disease.

All cases should be classified according to operability and further classified as to whether or not the irradiation was complete or incomplete. A careful follow-up plan should be instituted in order that activity may be determined as early as possible.

SURGERY OF THE NERVOUS SYSTEM

BRAIN AND ITS COVERINGS CRANIAL NERVES

LITTLE W I Ocular Phenomena Produced by Basal Lesions of the Frontal Lobe *J Im M* 155 1927 lxxv 2099

The early localization of a tumor or abscess in the frontal lobes has been extremely difficult from the ophthalmological as well as the neurological standpoint. The usual ophthalmological findings are bilateral choked disks associated with good visual acuity and concentric contraction of the peripheral fields of vision. In cases of basal lesions of the frontal lobe there may be rather striking ophthalmological findings which are exact enough to place the burden of localization on the ophthalmologist. Of a series of proved lesions of the frontal lobe more than 15 per cent (thirteen of eighty six) could be definitely localized from the ophthalmological examination whereas the neurological data were not characteristic enough to show that a frontal lobe or which lobe was involved. Loss of the sense of smell occurred too rarely to be of diagnostic value.

The characteristic feature in the exact localization of basal lesions of the frontal lobe is found in the perimetric fields. In seven of the fourteen cases reported a definite central scotoma was found on the side of the lesion; four of these were central scotomata and three were cecocentral scotomata. If pressure continues for a time the cecocentral scotoma enlarges and the peripheral field becomes smaller and smaller until only a small peripheral isle of vision remains either temporal or nasal to the fixation point. This type of field was found in three cases. If the pressure persists complete amaurosis is produced on the side of the lesion as was noted in one case. With bilateral or median line lesions bilateral central scotomata occur as was shown in three cases of the series. In one case complete amaurosis in both eyes was produced by a left basal endothelioma of the frontal lobe which pushed the left temporoparietal lobe medially to press directly on the optic chiasm. This is an extraordinary complication and cannot be considered part of the usual ophthalmological syndrome. Chiasmal lesions can produce scotomatous field defects similar to these but bitemporal defects for form and colors are associated with the scotomatous changes and are rarely associated with choked disks.

The fundal changes are not so characteristic. In seven cases there were bilateral choked disks while in only four was there a normal or pale disk on the side of the lesion with an associated choked disk on the opposite side. In the three other cases the condition of the fundi varied from bilateral pallor of the disks with some blurring to a slight blurring of

one disk and a definite choked disk on the opposite side. Apparently there is no definite sequence in the development of the choked disk or pale disk as in a few cases the fundi were found absolutely normal at one examination and a few days to a week later an early choked disk was found either beginning on the side of the lesion before the opposite side was affected or just the reverse. Again the normal disk had become pale without evidence of oedema of the disk developing on the side of the lesion. Nine of the fourteen cases showed evidence of bilateral oedema of the disk during the period of observation a fact suggesting that a retrolubular picture with a concomitant choked disk is not the usual condition.

The author draws the following conclusions:

1. Basal lesions of the frontal lobe can be localized accurately from the ophthalmological examination.

2. In a unilateral lesion a homolateral central or cecocentral scotoma associated with a normal pale atrophic or choked disk with contralateral normal central vision and choked disk is characteristic.

3. In a bilateral lesion bilateral central or cecocentral scotomata are present in association with bilateral choked disk.

4. Basal lesions of the frontal lobe are common (15 per cent) and can be diagnosed as readily and as accurately ophthalmologically as lesions of the optic chiasm.

Sharpe W Observations Regarding Ventricular Punctures *Ann Surg* 1928 lxxxv 11

While appreciating the value of Dandy's transcortical ventricular puncture for the localization of intracranial lesions Sharpe calls attention to the dangers of the procedure and recommends that it be used only when a remediable condition is suspected but cannot be localized by other methods.

LEO M. DAWIDOFF, M.D.

Goette K. Roentgenological Visualization of the Cerebellum (Ueber roentgenologische Kleinhirndarstellung) *Acta radiol* 1927 vii 340

Goette states that satisfactory roentgenogram of the cerebellum can be obtained after puncture of the cistern with the head bent forward. It is still to be determined however whether this method will prove of value in diagnosis.

A case of cyst of the cerebellum in which roentgenograms were made in this way is described.

Moersch F P Tumors of the Brain and Syphilis *J M Sc* 1928 clxxx 12

Neither the serological data, the condition of the fundus nor any one cardinal symptom is pathognomonic of brain tumor or syphilis.

tabetic gastric crises kraurosis of the vulva painful sequelæ of spinal wounds and causalgias of the lower extremities which have resisted medical or surgical therapy It is contra indicated in the cases of psychopathic patients morphinomaniacs and cases of peripheral and body pains of mental origin Generally the operation has been done only for the relief of pains in the subdiaphragmatic part of the body When the pain is unilateral the chordotomy should be performed on the opposite side For the relief of median or bilateral pain a bilateral chordotomy is necessary In bilateral section Frazier makes each incision at different levels 2 cm apart in order to preserve the solidity of the cord but the authors have often left no space between the sections with out untoward results

Inhalation or rectal anesthesia induced with ether is preferred by the authors but De Martel uses local anesthesia In addition to general or local anesthesia some surgeons apply a tampon of 10 per cent stovaine just above the site of section to block all disagreeable reflexes As a rule the patient is placed in ventral decubitus with a head support to release the thorax and neck De Martel however operates with the patient seated because in this position there is complete respiratory freedom bleeding is less and the blood escapes from the lower end of the wound Abundant loss of spinal fluid causes no appreciable trouble

The seventh cervical spinous process is not an absolute landmark as the sixth cervical and first dorsal may be the most prominent The exact level of the chordotomy is unimportant The incision is made over three spinous processes The latter are then freed to the base sectioned and turned upward as a flap or removed temporarily or permanently Removal of the laminae of two vertebrae gives sufficient exposure The epidural fat is divided in the midline and pushed to each side Perfect hemostasis is essential The dura mater well exposed and dry is split the entire length of the wound In one method the pia arachnoid is left intact so that the spinal fluid under it acts as a magnifying lens and the cord dentate ligament and nerve roots float in the fluid De Martel grasps the dentate ligament across the arachnoid to pivot and incise the lateral cord In another method the meninges are incised and retracted by means of threads passed through the borders The spinal fluid escapes The surgeon stands on the side opposite the cord section

After the lateral cord is well freed a tooth of the dentate ligament is grasped by forceps and loosened from the dura Traction on the dentate ligament (the base of which is firmly attached to the cord) pivots the cord so that the anterolateral surface becomes plainly visible When cord rotation is faulty there is danger of sectioning the pyramidal tracts If the dentate ligament tears from the cord or is poorly developed the cord is best rotated by grasping the pia mater directly by harpooning the cord at the lateral border with a minute crochét needle the two dentate ligament teeth having been freed if

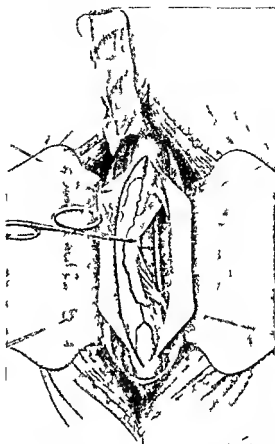


FIG. 1. Rotation of the spinal cord by traction on the dentate ligament The dotted line indicates the level of the superficial section of the cord

possible Displacement and rotation of the cord should be done with gentleness and extreme care

The landmark for the section is the anterior roots After the escape of the spinal fluid these hug the cord and are difficult to see They may be caught in the clamp and not observed until released or if slender and short may be invisible If they are not found at the cord they should be sought at the dorsal exit and retraced to the cord

With a small oculist's tenotome puncture and incision of the pia mater are done from the anterior roots to the dentate ligament Through this incision the special triangular knife is introduced To make the section correctly as regards length and depth appears simple but is extremely difficult A good section has the shape of a triangle with a base of 3 mm and a height of 2.5 mm The knife must not be passed too far backward or forward A misplaced section causes no or almost no analgesia and is apt to produce serious pyramidal injury

The first essential is an accurate surface incision The posterior end should be halfway between the posterior and anterior roots at the dentate ligament and the anterior end should reach or even pass the anterior roots For good orientation the degree of cord rotation must be estimated

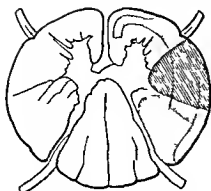


Fig. A fs t no f th h d t my

The effect of cutting the gray matter rather than the horn is unknown. To aoid pyramidal tract injury the surgeon tends to cut it far so and (harmless in itself) and not enough but a good result the pyramidal tract should be grazed even slightly cut because of the intermingling of the fibers for short distance. The authors divide it into two small sections and the making an examination to see if the sections are healthy and roots letting the cord fall into place and not touching posterior end of the section. An anastomosis can do not gap is not deep enough. There is no objection to repassing the knife. To guide the section Fraenkel passes a suitably sized curved needle to the dorsal from the dentate ligament to the anterior root and section the cord with the concavity of the needle with a small curved bistoury.

In the closure of the spinal canal the author generally replaces the spinous processes. If good hemostasis has been obtained a drainage is necessary.

After the operation the patient lies flat on his back. Antineuralgic treatment for the first forty-eight hours. The sutures are removed on the tenth day and the patient is allowed to get up on the tenth day. From three to eight days complete rest is often made of the strapping on the waist and the back. The effect usually requires morphine and probably due to operative trauma to the cord. For the prevention Leighton advises gentle massage the operation and possibly a posterior radotomy at the site of the chordotomy.

In nearly all cases there is a urinary retention for from two to eight days and occasionally repeated catheterization necessary causes infection of the bladder. In rare cases urinary incontinence has occurred. Trophic lesions, the sloughs which are fairly frequent complications are due directly to the chordotomy as is evident from the multiplicity and sites (scum, heel, trochanteric calf, etc.). The cicatrization slowly and unquestionably renders the prognosis less favorable. In one of the author's cases a subcutaneous abscess of pus fluid occurred. The complications are classified as mild with or without pyramidal signs and as pyramidal without appreciable motor signs arise from lesions of the pyramidal tract

either from too posterior a section or small centers of necrosis to interruption of radiating vessels about section of the tract. When pyramidal signs are absent the functional recovery is generally rapid.

Chordotomy always leads to extreme muscular hypotony. This is most marked in the lower limbs but is not enough to relieve contractures. The operation is successful in itself but because of the patient's general condition. In cases of cancer the early mortality is 5 per cent. In late cases the operation does not seem to hasten or retard death. In non-cancerous cases the early mortality is 6 per cent.

Chordotomy undoubtedly favors urinary troubles and may have caused death if the patient's resistance to infection is low but when it is successful it assures a substantial absolute and definite relief from pain. The result should be done unhesitatingly in cases of cancer. After incorrect operations the relief may be negative or incomplete. In certain unexplained cases the author has noted very definite anesthetic paraparesis a simple disturbance of temperature sensation. Chordotomy causes no change of tactile sensibility or sense of position. He considers superior to posterior radotomy which abolishes all sensation. W. FRANK BURKET, M.D.

SYMPATHETIC NERVES

Martin E. G. The Physiology of Muscles Innervated in the Sympathetic System. *J. B. & J. I.* 5: 98-8.

Following a brief review of the work and theories of Hunter and Ryle the author discusses the possible mechanisms of muscle tone during the myotatic effect of Sherrington and Liddell as they accepted the latter's theory. He states that there is surely a sympathetic nervous supply to at least some if not all of the muscle fibers both red and pale but the exact nature of the role it plays is not known. If we accept the theory that tonus and the exaggerated tetanus seen in spasticity are mediated through the somatic nervous system the question arises as to what role the sympathetic fibers play in muscle tonus and hypercontractility of improvement occurs in certain cases of spasticity after division of the sympathetic nervous supply to the part. The observations of O'Brien and his pupils seem at least to suggest an answer.

O'Brien found that if skeletal muscle of the frog is stimulated rhythmically through its somatic nerve it gives a tetanus in a definite time while the sympathetic nervous stimulation is continued the sympathetic innervation to the muscle is also stimulated and the contractions improve in height. Therefore the sympathetic stimulation has in some way affected the muscle causing it to perform better than before the sympathetic stimulation. This effect was shown to be independent of the circulation. The fact that it usually some delayed suggests a chemical action in the muscle resembling the effect of the same innervation in the heart. If this assumption

tion is correct the removal of the sympathetic nervous supply to a muscle which is spastic might occasion an improved state of metabolism in which the tonus ceases to be exaggerated.

GILBERT C. ANDERSON, M.D.

Kuntz A. The Distribution of the Sympathetic Ramuli to the Brachial Plexus Its Relation to Sympathectomy Affecting the Upper Extremity. *Arch Surg* 1927 VI 871

Extirpation of the stellate ganglion alone or section of the gray rami connecting it with the brachial plexus for vasomotor denervation has failed in most cases to eliminate completely the sympathetic nerves of the upper extremity.

The author reports further studies made in an attempt to explain this failure. Attention was directed particularly to an inconstant intrathoracic ramus that connects the first and second thoracic nerves as a possible pathway through which sympathetic fibers may connect the trunk below the stellate ganglion with the brachial plexus through the first thoracic nerve.

The chief sources of sympathetic fibers to the upper extremity are the middle and stellate ganglia. The former is often absent in which case the stellate ganglion is usually connected by gray rami to all of the nerves from the sixth cervical to the second thoracic and a white ramus from the first to the stellate ganglion.

Frequently an intrathoracic ramus of the second joins the first thoracic nerve. In forty eight cadavers examined by the author such a ramus was present bilaterally in 44 per cent and unilaterally in 19 per cent. Considerable variation was noted in its size, location and connections. In some cases there were branches from it directly to the stellate ganglion. There were always the gray and white rami from the sympathetic ganglion or trunk to the second thoracic nerve.

Microscopic study of this intrathoracic ramus joining the first and second thoracic nerves showed chiefly small caliber fibers with thin myelin sheath or absence of myelin which are characteristic of sympathetic fibers. Recent studies by various investigators on the innervation of the arteries of the extremities in mammals show that sympathetic fibers are carried peripherally in the larger nerve trunk and join the arteries at intervals along their course. Few if any extend peripherally along the walls of the vessel.

From these data the author concludes that extirpation of the stellate ganglion alone or section of the gray rami connecting this ganglion with the brachial plexus is inadequate to denervate the blood vessels of sympathetic fibers completely. To insure such denervation it is necessary not only to section the gray rami connecting the middle and stellate ganglia with the brachial plexus but also to extirpate the stellate ganglion and either cut the sympathetic trunk below the level of the second thoracic or sever the communicating rami of the trunk with the sec-

ond and all peripheral rami arising between this level and the stellate ganglion. The anatomy of this region is shown in three drawings.

ALBERT S. CRAWFORD, M.D.

MISCELLANEOUS

Quick D. and Cutler M. Neurogenic Sarcoma. *Am Surg* 1927 LXXXI 810

The tumor commonly designated as fibrosarcoma, spindle cell sarcoma or fascial sarcoma occurs most frequently in the subcutaneous and intermuscular tissues of the arm, leg, popliteal space and chest wall. Ewing has called this neoplasm neurogenic sarcoma. As it is comparatively rare the average surgeon does not encounter it with sufficient frequency to be familiar with its true nature. Because of its heinous appearance it is often removed by simple excision. The result is prompt recurrence followed by repeated excisions and recurrences. The condition becomes progressively more extensive and death often results from pulmonary metastasis.

The authors report is based upon seventy five cases treated in the Memorial Hospital, Toronto during the past fifteen years. The tumors are divided into three groups according to their malignancy as judged from their histological structure. The patients ranged in age from six to seventy two years. The authors state that a single injury does not seem to be a cause but chronic irritation or repeated trauma may be of etiological importance. In the great majority of the cases the tumor occurred in one of the extremities or the chest wall but in some it developed in the neck, buttock, axilla, groin or scalp.

Of five patients with a tumor of the upper extremity who were subjected to amputation, two are alive after five and eight years respectively and three died of pulmonary metastasis soon after the operation. Of nine patients with similar tumors who were treated by radiation or local excision of the growth or both, five are well from five to nine years after the operation and three are dead. The three who died developed pulmonary metastases.

Of fifteen patients with a tumor of the thigh, thirteen are dead. Many of the failures in this group must be attributed to the advanced stage of the disease. Amputation was attempted in one case but the others were treated by excision alone or excision followed by the implantation of bare tubes. Inoperable cases were treated mainly by exposure and the insertion of bare tubes but in several instances zinc chloride paste was used alone or combined with radiation.

Of five patients with tumor of the neck, two died, two had good palliative results and one is free from disease fifteen months after combined excision and radiation. The two who died had advanced recurrent tumors which were treated by small doses of external radiation. Two advanced inoperable tumors of the neck are being held in check by high voltage X-ray irradiation and radium packs. This

treatment was begun two years ago and both of the patients are in excellent general condition.

Of nine patients with a tumor of the chest wall five are alive and four have died. Two of these who are dead lived for five years after the beginning of treatment. I died of pulmonary metastasis. Of the five who are alive the growths are arrested in three and have disappeared in two.

Pulmonary metastases occurred in fifteen (60 per cent) of the eleven patients. A few have definite radiographic evidence between the cellular nature of the tumor and their tendency to form metastases. The macroscopic structure of the neoplasm may serve as a favorable clue to the treatment and prognosis.

In one of the cases the lesion is that of the most cellular variety of tumor, the embryonic type, and the prognosis is unfavorable. In the other cases the tumors are of the fibrosarcoma type, and the prognosis is favorable. In all the cases the patients have responded well to the treatment. Occasional cases are those in which the tumor is of the embryonic type and the prognosis is unfavorable. Both tumors presented the clinical features of embryonic sarcoma but histological

examination showed one to be a very cellular malignant round and polyhedral cell tumor and the other to be a lymphosarcoma. A small dose of radiation such as 1500 rads with a 1000 rads dose of the X rays may therefore be a valuable diagnostic aid.

In cases of neurogenic sarcoma of the extremities the decision between amputation on the one hand and excision and radiation on the other is at times most difficult. Of ten patients with such tumors who were subjected to amputation five died of pulmonary metastasis and five are well. Whereas of fifteen who were treated by local excision and radiation seven are alive after from two to nine years and eight are dead. The result of amputation appears to depend mainly on the degree of malignancy of the tumor.

The authors conclude that the treatment of choice is preoperative radiation and wide excision followed by prompt and adequate postoperative radiation.

The clinical cases and the treatment are reviewed in detail. An analysis of the failures indicates that many of them were due to the highly malignant nature of the tumors at the advanced stage of the condition or inadequacy of the treatment employed.

G. B. CAMPBELL, M.D.

SURGERY OF THE CHEST

CHEST WALL AND BREAST

Anderson J. Surgical Diathermy in Breast Cancer. The Application of the Arc Electrode or Cutting Current to the Radical Operation. *Brit J Surg* 19 8 vi 500

In the treatment of cancer of the breast Anderson uses surgical diathermy in the form of the arc electrode. The apparatus and the technique are described. The small machine ordinarily used for medical diathermy is sufficient. A fine arc appears between the electrode and the skin and the tissue is cleft to a depth varying from a fine line to 1 cm according to the amount of current used and the tissue resistance. For dissection of the axilla a scalpel is necessary.

The author uses the arc electrode also for the removal of various tumors of the skin and mucous membrane. Because of the inflammability of its vapor ether cannot be employed in the operating room.

The advantages claimed for the use of the arc electrode are that it seals the lymphatics thereby preventing mechanical dissemination of the cancer cells; it gives better hemostasis with a saving of blood; and time. It sterilizes the wound; it is associated with less pain and shock than other methods; it is followed by cleaner and more satisfactory healing; and it is less apt to be followed by recurrence.

Histological sections of removed tissues show little alteration of the cell structure adjacent to the line of desiccation. NATHAN N. CROHN M.D.

TRACHEA LUNGS AND PLEURA

Archibald E. and Brown A. L. Cough Its Action on Material in the Tracheobronchial Tract. Experimental Study. *Arch Surg* 19 8 xvi 322

The authors state that the forced expiratory effort of coughing is immediately preceded or followed by a markedly increased inspiration. Therefore by the inspiratory rush of air and the expiratory effort coughing may spread material in the bronchi deeper into the pulmonary tree instead of expelling it.

In experiments on cats in which iodized oil alone and mixed with sputum and tenacious masses of sputum impregnated with the oil were injected the authors found that in the animals which coughed the oil was carried deeper into the lung tissue and remained much longer than in the animals which did not cough. It remained even longer when the trachea was compressed during the cough. The tenacious masses were carried no further than the large bronchi and were soon expelled.

These findings suggest that in certain surgical operations coughing may be more dangerous than beneficial. Coughing expels most of the fluid material aspirated into the trachea and larger bronchi but forces some of it into the alveolar spaces.

CHESTER L. CREAN M.D.

Lerche W. Infections of the Lymph Nodes of the Bronchial Tree. *Arch Surg* 1928 x i 338

The lymphatics of the lungs are found in the walls of the bronchi along the arteries and veins and in the pleura. The flow of lymph in the lung and the larger part of the pleura is toward the hilum. Valves in the connecting vessels between the pleural and deep lymphatics point to the pleura thereby preventing the passage of an injection mass into the deeper tissues. The lymph from the lungs, the bronchi, the lower part of the trachea and the larger part of the pleura is received by the tracheobronchial nodes.

Microorganisms may be carried to the tracheobronchial nodes by the lymphatics following their inhalation into the lower respiratory passages or their transportation to the lymphatics by way of the blood stream. They have been found in these nodes when there was no other focus of infection in the lungs.

When microorganisms settle in a lymph node in the lung they may be destroyed *in situ* or remain latent or they may set up an inflammatory reaction followed by healing with or without calcification or they may lead to suppuration of the node into a bronchus or the parenchyma of the lung with the formation of an abscess.

Particularly in childhood swollen tracheobronchial lymph nodes—tuberculous or non tuberculous—may compress the bronchi. In the presence of infection such compression may lead to bronchiectasis.

The bronchopulmonary nodes may also be potent factors in the causation of bronchiectasis in children. When these nodes are enlarged and inflamed and there is an associated periaortitis with oedema the bronchi may be compressed directly by the nodes or by the fibrous tissue resulting from the acute periaortitis. Illustrative cases are reported.

For advanced cases of abscess of the tracheobronchial spaces the author advises puncture through the bronchoscope. CHESTER L. CREAN M.D.

Pickhardt O. C. Unresolved Pneumonia A Surgical Analysis. *Arch Surg* 1928 xvi 192

In an analysis of fifty two cases referred for X-ray examination as unresolved pneumonia the author found that only six were correctly diagnosed. He states that as a rule the diagnosis of

unresolved pneumonia is an admission of failure to determine the true nature of the lesion. He has tabulated the various conditions to which this term was applied in the cases reviewed and includes in his article roentgenograms of true cases of unresolved pneumonia. He calls attention to the peribronchial thickening which is the result in typical cases. His conclusions are as follows:

1. The primary unresolved pneumonia is a rare condition.

2. In the rare positive case a definite localized peribronchial infiltration visible in the roentgenogram develops later.

3. Approximately 36.5 per cent of pulmonary conditions diagnosed as unresolved pneumonia are frankly surgical conditions.

4. The thoracic surgeon should be consulted more frequently whenever pneumonia does not resolve promptly and properly.

RALPH B. BETTMAN, M.D.

Crowe S. J. and Scarff J. E. Experiment I: Abscesses of the Lung in the Dog. *J. H. S. G.* 9, 8.

Allan D. S. The Etiology of Abscess of the Lung. Experiment I and Clinical Studies. *J. H. S. G.* 9, 8.

Crowe and Scarff state that on the basis of 350 tonsillectomies performed at the Johns Hopkins Hospital Baltimore the precautions to prevent the aspiration of infectious material and to avoid a single postoperative abscess of the lung they have come to the conclusion that postoperative pulmonary abscess is due to aspiration rather than to the lobe at once infected embolus.

The precautions taken in the cases reviewed are the following:

1. Morphine and atropine were given before the operation.

2. The anesthesia was induced by a trained anesthetist.

3. Throughout the operation the patient's head was kept at least 15 degrees lower than his feet.

4. The allowing of the lobe through a bronchoscope during the period of anesthesia.

5. The mucus and blood were removed from the pharynx by careful suction.

6. All bleeding vessels were carefully ligated.

In experiment on dogs in which pigments of iron saturated with fresh scrapings from pyorrhea cavities from clinical cases were introduced into the main bronchus of the lobe through a bronchoscope Crowe and Scarff were able to produce lung abscesses in eight instances. The abscesses are confined to a single lobe and are associated with general pneumonia. They were characterized by necrosis of the cavity formation.

In the other dogs pulmonary abscesses resulted from a sinusitis with a constant foul smelling discharge from the nose which was produced by placing cotton pledgets contaminated with pyorrhea scrapings into the frontal sinuses.

In the cases of fifty dogs in which pledgets of cotton infected with cultures of pneumococci, staphylococci, streptococci, colon bacilli and various other bacteria instead of pyorrhea scrapings were introduced into the main bronchus the results were negative or a diffuse pneumonitis developed.

Allen discusses the production of pulmonary abscess by way of the air passageway (aspiration) and by way of the blood stream (emboli).

In experiments to produce abscesses of the lung by aspiration on dogs injected pus obtained from cases of chronic non-tuberculous abscess of the lung into the trachea of fifteen rats. None of the animals developed either a pulmonary abscess or pneumonia.

Belving that the bacteria might have been killed by hilling then injected arm pus immediately after it coughed up into the trachea of eighteen dogs. In three rabbits. Two of the dogs but none of the rabbits developed abscesses of the lung. The abscesses multiple but so small as to be seen only on microscopic examination. They resembled the cavity abscesses of the lung in man.

As in clinical cases rather as a latent period between the aspiration of the infected material and the development of the symptoms. It was noted that the abscesses developed in portions of the lung farthest from the main bronchi that is in places where pus was most likely to become trapped.

In the case of seven dogs plugs of infected tonsil tissue or blood were blown into the bronchi by means of compressed air. No lung abscess developed and necropsy showed that the plug had been expelled.

In three dogs purulent material was introduced into a lobe of the lung and the main bronchus then ligated. Two dogs developed multiple abscesses and one pneumonia. Four control dogs in which the bronchus was ligated without the previous introduction of purulent material did not have these complications.

In the experiments millimeter sized iron introduced into the bronchi through the bronchoscope with the barbs pointing toward the trachea but even these foreign bodies were coughed up.

Attempts to produce lung abscesses in dogs by the liberation of septic emboli from the cord to the technique of Cutler gave positive results.

In conclusion the author says. My coworkers and I do not wish to doubt the possibility that abscesses of the lung may be due to the lodgment of infectious emboli in the radicals of the pulmonary artery. We have produced such abscesses experimentally. We have however hoped to point out and to prove experimentally that the route of entry of infectious material into the lung may be through the air passages. A single infection into the sinus when entered in the pulmonary artery may produce a single abscess of the lung likewise infectious material introduced into the sinuses may produce multiple abscesses of the lung. The principal requisit in these cases is that the infectious material is not allowed to escape from the lung.

RALPH B. BETTMAN, M.D.

Kernan J D Abscess of the Lung Relieved by
Bronchoscopy Report of Cases *Irch Surg*
1928 xvi 215

In a series of 103 cases of abscess of the lung reviewed by Kernan the common etiological factors included tonsillectomy pneumonia and operations other than tonsillectomy In 20 cases the cause was not apparent Cases in which foreign bodies were responsible were not included unless the foreign body had been present for a long period of years

Of the 103 patients 68 were treated by bronchoscopy Usually at least 3 bronchoscopies were required in each case as were generally necessary to accustom the patient to the instrument Of the 68 patients so treated 37 were relieved of the cough expectoration and fever and were considered cured but 2 of these died later from another cause Fifteen others were benefited 9 could not be traced 9 are dead and 4 are still under treatment Of 8 patients who were treated surgically 3 were cured 2 died and 3 could not be traced

In 27 of the cases treated by bronchoscopy the abscess followed tonsillectomy In 15 of these a cure was obtained In 9 of the 15 which were cured the recovery followed one or two bronchoscopies In the 27 cases excluding those subsequently operated upon there were 3 deaths 1 of which was the result of embolism and directly attributable to the treatment

Pulmonary abscesses following tonsillectomy respond best to bronchoscopy The treatment is most successful if it is begun early while the abscess wall is elastic and able to contract but is always indicated however unfavorable the x-ray appearance since gratifying results occasionally follow even in cases with an apparently poor prognosis

The author discusses seven cases of pulmonary abscess following tonsillectomy and one case of abscess developing years after exposure to gas during the war which was clinically cured after two bronchoscopies in spite of the long duration of the condition He reports also an abscess of six months duration which developed after pneumonia and took the form of a mass of scar tissue with fistulous tracts In this case a cure was effected after months of bronchoscopic treatment BURTON CLARK JR MD

Eggers C and Kernan J D Acute Pulmonary
Suppuration The Selective Action of Artificial
Pneumothorax in the Treatment of This
Disease *Irch Surg* 1928 xvi 279

Artificial pneumothorax has received scant attention in the treatment of acute non tuberculous intra pulmonary suppuration and opinions as to its value vary greatly The authors report a case in which it gave striking results The patient was a six year old girl who developed an abscess of the lower lobe of the right lung a few days after a tonsillectomy performed under general anesthesia seven weeks before her admission to the hospital At the time of her admission she was thin anæmic and febrile and coughing up quantities of pus

In spite of two weeks of bronchoscopic treatment she continued to fail At the end of that time a rib was resected under local anesthesia and air admitted to the pleural cavity through punctures made in an ineffectual attempt to strike pus Following this procedure roentgenograms showed collapse of the lung This collapse was limited chiefly to the lower lobe indicating apparently that the upper pleural cavity was protected by adhesions

Immediately after the operation the patient began to improve There was a rapid diminution of the cough and expectoration with an associated gain in weight After two weeks the temperature remained normal A month later bronchoscopy and x-ray examination demonstrated a small contracted lower lobe with dilated bronchi The other lobes had expanded to fill the chest completely The patient has remained well

Pneumothorax permits collapse of the lung with obliteration of the suppurative focus In the contracted lung circulation is diminished and fibrosis sets in tending to maintain collapse and favor healing The two important factors for the success of the procedure seem to be a free bronchial outlet and a non adherent lung Therefore the treatment must be given early BURTON CLARK JR MD

Whittemore W and Balboni G M Non Tuber-
culous Bronchopulmonary Suppurative Le-
sions Results of Treatment by Artificial
Pneumothorax *Ach Surg* 1928 xvi 228

The authors review the end results of artificial pneumothorax in 245 cases of non tuberculous bronchopulmonary suppurative lesions—222 cases reported in the literature during the last twenty four years and 23 cases of their own

In the authors series there were 18 cases of lung abscess and 5 of bronchiectasis Of the patients with lung abscess 2 were cured and 2 were benefited temporarily One of the latter died within a year from bronchopneumonia Partial pneumothorax brought about improvement of all symptoms but fifteen months after the suspension of the treatment the patient died of embolism There were three fatal hemorrhages during the treatment in these cases the pneumothorax was incomplete because of adhesions In 2 cases the treatment caused no improvement and in 3 the pneumothorax was unsatisfactory Five patients developed empyema and were operated upon Three of these were cured 1 is still under treatment and 1 died

Of the 5 cases of bronchiectasis in the authors series pneumothorax was satisfactory in 3 In 1 of these 3 it resulted in cure In the 2 others it caused improvement but 1 of the patients died later following an operation for empyema In the authors opinion artificial pneumothorax offers small chance of cure in bronchiectasis

The cases reported in the literature included 129 of abscess of the lung and 93 of bronchiectasis

Of the 129 cases of abscess of the lung 68 were cured Twelve of the patients were not benefited

or less acute process with a resulting condition similar to lobular or lobar pneumonia. In this type resorption may be almost complete in time but caseation, cavitation and fatal progression may occur. However if the resistance is strong the acute form with cavity formation may turn into the chronic productive type.

The productive form suggests a high resistance. It leads to the formation of typical tubercles with or without a fluid exudate. Cavities may occur but coincident with their formation there is the production of fibrous tissue with a tendency toward healing. The exudative form usually represents an acute process with massive or virulent infection and poor resistance. The productive type is thought to be the result of infection by a few bacilli in the presence of high resistance.

A distinction between these two types may be made in part from the clinical picture and in part and more accurately from the X-ray picture. Both forms may be present simultaneously or one form may change to the other.

The prognosis depends upon the resistance. The exudative form represents activity and a poor defense while the productive form indicates chronicity and a good defense. Surgery is to be considered only if there is good resistance evidenced by the clinical course of the condition, the constitutional symptoms and the findings of the physical and X-ray examinations.

The type of case most favorable for operation is the good chronic case. In incipient and far advanced cases surgery is not to be considered. The other lung must be sufficiently sound to carry on respiration alone. There must be signs of a unilaterally contracted chest, a falling in of rib spaces and subclavicular fossae, a pulling up of the diaphragm, a pulling of the trachea, heart and mediastinum toward the affected side and a narrowing of the intercostal spaces. In this type of case contraction has already occurred as far as possible and further collapse requires the partial removal of ribs. When collapse and healing are complete only a small solid fibrous lung remains. This result is brought about after operation because the formation of fibrous tissue is stimulated, lymph flow and toxic absorption are retarded and the blood circulation is hindered.

In doubtful cases it is better to try lesser procedures such as pneumothorax or phrenicectomy. If the patient responds well to one of these measures he may later be suitable for thoracoplasty. The author believes that acute cases should never be operated upon.

The article contains three tables covering 140 cases. In 117 thoracoplasty was performed. The mortality within the first two months after the operation was 7.7 per cent and the mortality from later progress of the disease 19.3 per cent. A cure resulted in 33 per cent of the case and marked improvement in 32 per cent.

FRANK B. BERRY, M.D.

Table J. The Action of Phrenicectomy on Tuberculous Lesions of the Upper Lobe. (Action de la phrénicectomie sur des lésions tuberculeuses du lobe supérieur.) *Pull et al., Soc. méd. d'hôp. de Par., 1927, clin. 1636.*

Table reports two cases in which phrenicectomy appeared to interrupt the evolution of tuberculous lesions of the upper lobe. He does not believe the result can be considered a coincidence as both were cases of tuberculosis with cavities showing a tendency to extend and the patients were obliged to work for their living and hence were unable to take the diet and rest treatment.

After failure of pneumothorax a thoracectomy seemed indicated. The improvement obtained with phrenicectomy was quick and lasting. Two years later one of the patients had ceased coughing and the other was able to support herself and child.

In the author's opinion thoracoplasty should be reserved for cases in which the symptoms are immediately threatening. Phrenicectomy makes it possible to judge the function of the other lung and to perform costal resection later with a greater sense of security. Sometimes as in the cases reported the improvement following phrenicectomy is so great that no further intervention is necessary.

The favorable action of phrenicectomy on apical lesions cannot be entirely explained by the rise of the diaphragm. The operation acts also by provoking a retractile pulmonary sclerosis. While the sclerotic process had already begun in Table's cases before the treatment its increase after the operation suggested that the phrenicectomy favored the development of new fibrous networks. Excess of the phrenic nerve therefore finds its best indications in subacute forms of fibrocavitary tuberculosis especially those with a spontaneous tendency toward retractile sclerosis in which pneumothorax is impossible or useless because of extensive pleural adhesions.

ANN L. PACE

Arklin, B. R. and Peterson, R. The Roentgenological Manifestations of Primary Carcinoma of the Lung. *J. Roentgenol.* 1928, vii, 20.

The authors state that previous reports on pulmonary carcinoma have dealt largely with the late stages of the disease complicated by massive tumor infection or the presence of fluid. The early cases fall into two groups: the bronchial (which are not discussed here) and parenchymal. Parenchymal carcinoma is usually adenocarcinoma and tends to run a rapid and at first symptomless course.

Three roentgenological types are described—the nodular, the lobar and the infiltrating. The nodular type, which is the most common, consists of an irregularly rounded infiltrating nodule lying completely in the pulmonary field and usually not involving the periphery. The lobar type is of homogeneous density, occupies an anatomical lobe and shows an infiltrating edge. In the infiltrating type there is increased density of the bronchial tree radiating from the hilum.

Farr C E and Levine M I Empyema in Children A Preliminary Report *Surg Gynec & Obst* 1928 xlii 9

The authors review 371 cases of empyema in children with regard to the age of the patient the year in which the condition developed and the organism responsible for the infection. Empyema is a secondary process. In 92 per cent of the cases reviewed it followed pneumonia.

The incidence of empyema probably bears a relationship to the prevalence of pneumonia and the virulence of the organism. The mortality is very high in infancy and then drops rapidly until the age of seven years. Age seems to be the chief factor in the prognosis but the type of the infection the year in which it develops and the virulence of the organism are also of great importance.

The method of treatment used—whether it is intercostal incision rib resection open drainage closed drainage the use of Dakin's solution or simple drainage—seems to have little influence on the prognosis. In choosing the time for operation the surgeon should be guided by the nature of the pus and the patient's condition.

Recurrences seldom result if free drainage is obtained and maintained.

Death from empyema in the cases of children is almost always due to general debility brought on by the previous illness or is the result of existing complications rather than to the empyema itself.

J FRANK DOUGHERTY M D

Janes R Tuberculous Empyema *Canadian M Ass J* 1928 xiii 6

Janes states that the prognosis of tuberculous empyema is always grave and the postoperative mortality high. From the standpoint of treatment the cases fall into three groups: (1) those of empyema in a closed cavity without secondary infection; (2) those of empyema in a closed cavity with secondary infection; and (3) those complicated by a bronchial fistula a chest wall sinus or both.

Sterile purulent exudates in a closed cavity should be treated as a pleural effusion if the lung expands when the fluid is withdrawn. When the lung is fixed in collapse thoracoplasty should be performed.

Repeated aspirations may lead to secondary infections. Open drainage should never be established in sterile cases. If a bronchial fistula or empyema necessitatis develops thoracoplasty should be done at once before the occurrence of secondary infection.

When secondary infection is already present the problem is always extremely difficult. Efficient drainage should be established preferably by the closed method and irrigation of the cavity should be undertaken. Dakin's solution is contra-indicated as it is too irritating. In the next step of the treatment a multiple stage complete extrapleural thoracoplasty must be performed. In this way a large cavity may be converted into a small shallow one

with only a scanty discharge and the patient restored to comparatively good health. In favorable cases the shallow cavity may be later unroofed packed with iodoform gauze and treated with quartz light and the resulting defect closed with a pedicled skin graft.

FRANK B BERRY M D

ÆSOPHAGUS AND MEDIASTINUM

Smith L A Diverticula of the Thoracic Æsophagus *Am J Roigenol* 1928 xiv 2

Prior to the use of the X ray diverticula of the thoracic Æsophagus were found only at autopsy. Carman collected fourteen cases seen in the period from 1892 to 1919 in all except one of which the diagnosis was made at X ray examination. In the period between 1919 and 1926 the author collected twenty seven cases and in this article he adds nine new ones. In three of the latter the sacculations were multiple.

These cases appear to indicate that the condition is probably rather frequent but is often not diagnosed because of the absence of symptoms. In only three of the cases reported by Smith were there any symptoms suggesting a pathological condition in the Æsophagus and in only one was there any evidence whatever of cardiospasm which has been considered an etiological factor.

Smith reports also two cases of non traumatic para-Æsophageal hernia of the stomach associated with Æsophageal diverticula.

CHARLES H HEACOCK M D

Mosher H P Findings with the Barium Bougie in Cardiospasm *Ann Otol Rh ol & L ryngol* 1927 xvi 1124

Mosher is inclined to the opinion that cardiospasm is a stricture which is hardly more than an inflammatory gluing of the deep longitudinal folds of the lower part of the Æsophagus favored by accentuation of the normal twist of the tube in this locality. For the study of this condition he has devised a barium bougie a rubber balloon filled with barium the lower end of which has a metal cap about a centimeter wide. This bougie is introduced into the Æsophagus by means of a whale bone staff and the Æsophagus then examined with the roentgen ray. Retching occurs only when the bougie rests in the lower Æsophagus it does not occur when half of the bag is in the stomach and the other half in the Æsophagus the correct position when the X ray examination is made. More information can be obtained by this means than by direct observation through the Æsophagoscope. The author says: For years I have held that an examination at the lower end of the Æsophagus under local anesthesia and with small tubes amounted to little or nothing.

Six cases in which the barium bougie was used are reported. All showed a tubular narrowing of the terminal portion of the Æsophagus. The transverse and anteroposterior diameters of the narrowing were

The conditions to be considered in the differential diagnosis include metastatic tumor, various inflammatory processes, tuberculous mastitis, tumor and various congenital anomalies.

Rou iè e H Tle C nn ct ons bet en the lleur
and the Cerv c l nd Axlla y Glands (s le
t q c t ll) l d t p tl
07

In a study of forty specimens obtained from infants and young children, Ruess and the pleural tissue both sides in such a way that the split of the diffusion of the color fluid through the joint zone of the lymphatic vessels considered that from both the sections show that the different segments of the parietal pleura the mediastinal pleura (except the apical zone touching the pleural) and the diaphragmatic pleura have different connections with the cervical or iliac glands. Only the pleural dome of a part of the tal pleura connects with the glands by the lymphatic tract. By reason of the glandular connection the vessels may be divided into the lymphatic and

The h i t of th l t t i the pl u r l d o m th
the f r s t c o s t a l h a n d th f t t o t a l p e
e c l u d i n g th t m i t of th i n t h
r g n th l m p h a t a e t r i t u e of th n f a
c l a v a r l a r t a d c o n d i t y of th l l a r y
g l a n d s t h u n i t o n r t o c l l t h h
h v i n g a d t h p r i s e of th t h a r r i h
the i n t l o u p p e m a g d of th f i t r i h t h e
i m m e d a t e n e i g h b r h d f t h f r a c t a l a
a r t e r y O n e o m o e f t h e l p d i r t l y f o m
the p l e u t o t h c o r r p l n g g l a l

[illegible]

In th th d r g on th ly phat h no o
 nections th th avilla gla d It b he d by
 s me that the pleu o ct d th a ill v
 glands by n n of a tom s b t th a th s
 njection p im nt h that the o mal ute
 for the pr g f t l re l us inf u n s hy av
 of a lymphat v l p g t h l l p l
 though the t r s l m les v va l g l

L k od A L Tl Empy ma P oblem i /
S k o s

Empyema multiloculare suspected when a febrile condition maintained longer than usual following pneumonia. Cerebral metastases influenza tissued after a surgical procedure operations on the nose and throat and the extraction of teeth.

In such case the chart should be carefully examined and stereoscopic enlargements should be

ma d arly Aspiration should not be resorted to unless it is imo ssible to obtain roentgenograms and the only f a definite area of fullness is found

Emergency operations are not justifiable unless the pressure from the collection is so great that respiration is embarrassed or circulation is impeded. Removal of the fluid factors a fatal result. If aspiration is necessary, it should be done only by the method of replacement. Aspiration of an acute exudate should not be carelessly undertaken. Exudate in tuberculous pleurisy in which the fluid is thickened the withdrawal into the cavity of clear fluid that flows freely indicates that the spiration has been performed too early. It is surprising and imperishable how quickly even fairly thick fluid can be absorbed with in the pleural cavity. It should be borne in mind that the fluid is to protect a mechanism to plumb the lungs and stabilize the mediastinum and that death is the ultimate of the disease is due not to the absorption itself but to too early interference with the fluid collapse of the remaining air bearing tissue. A pleural effusion is a complication incidental to the result of pneumonia.

Bacteriologic examinations of the fluid made by L. d. revealed pneumococci in 39.4 per cent of the cases, streptococci in 0.4 per cent, staphylococci in 3.6 per cent, miscellaneous bacteria in 16 per cent and sterile fluid in 32 per cent.

In Lock's case of acute empyema as patient is in the early stage of the disease a replacement of the fluid thick. If this does not cause improvement closed drainage is established by the catheter and culture method. If there is still no improvement drainage is established by incision through an intercostal space and later if necessary a rib resected care being taken that the opening at the lowest portion of the cavity. Forced feeding and blood transfusion are used as supportive treatment.

I ch on c em p r e m a radical o p e r a t i o n s s h o u l d b e
 d e l e i u p o n o n l y a f t e r a t h o u g h t f u l r e v i e w o f t h e
 C a n a d i a n t r e a t m e n t I n a l l c a s e s w i t h c a v i t i e s
 h a v i n g a c a p a c i t y o f m o r e t h a n 3 0 0 L o c k w o o d
 e n l a r g e t o e x p a n d t h e l u n g t o t h e a l l o f t h e c h e s t
 r a t h e r t h a n t o c o l l a p s e t h e w a l l o f t h e c h e s t t o t h e
 l e g F o r m o s t c a v i t i e s w i t h a c a p a c i t y o f l e s s t h a n
 3 0 0 e s p e c i a l l y t h o s e p e r i p h e r a l l y s i t u a t e d h e
 r e f e r s c l o s u r e b y m u s c l e o r s k i n f l a p l i m i t e d r e
 s e c t o n o f t h e w a l l o m e s i m i l a r s i m p l e m e t h o d

Before any extracorporeal intervention is undertaken, the cavity should be thoroughly irrigated with surgical solution of chlorazene soda until the lung no longer expands and the discharge is a sterile as possible. If necessary, a decortication may then be done with partial resection of the bony rib if the chest and thickened parietal pleura covering the cavity. For the most complete result the incision must be hermetically sealed to establish a negative pressure and maintain the re-expanded lung expansion. Multiple small perforations safely carried out indicate sound surgical judgment.

CH STE L CRE N M D

Farr G E and Levine M I Empyema in Children A Preliminary Report *Surg Gynec & Obst* 1928 xlii 9

The authors review 371 cases of empyema in children with regard to the age of the patient the year in which the condition developed and the organism responsible for the infection. Empyema is a secondary process. In 9 per cent of the cases reviewed it followed pneumonia.

The incidence of empyema probably bears a relationship to the prevalence of pneumonia and the virulence of the organism. The mortality is very high in infancy and then drops rapidly until the age of seven years. Age seems to be the chief factor in the prognosis but the type of the infection the year in which it develops and the virulence of the organism are also of great importance.

The method of treatment used—whether it is intercostal incision rib resection open drainage closed drainage the use of Dakin's solution or simple drainage—seems to have little influence on the prognosis. In choosing the time for operation the surgeon should be guided by the nature of the pus and the patient's condition.

Recurrences seldom result if free drainage is obtained and maintained.

Death from empyema in the cases of children is almost always due to general debility brought on by the previous illness or is the result of existing complications rather than to the empyema itself.

J IRVING DOUGHERTY M D

Janes R Tuberculous Empyema *Can dan M* 1st J 1928 xliii 10

Janes states that the prognosis of tuberculous empyema is always grave and the postoperative mortality high. From the standpoint of treatment the cases fall into three groups: (1) those of empyema in a closed cavity without secondary infection; (2) those of empyema in a closed cavity with secondary infection; and (3) those complicated by a bronchial fistula a chest wall sinus or both.

Sterile purulent exudates in a closed cavity should be treated as a pleural effusion if the lung expands when the fluid is withdrawn. When the lung is fixed in collapse thoracoplasty should be performed.

Repeated aspirations may lead to secondary infections. Open drainage should never be established in sterile cases. If a bronchial fistula or empyema necessitatis develops thoracoplasty should be done at once before the occurrence of secondary infection.

When secondary infection is already present the problem is always extremely difficult. Efficient drainage should be established preferably by the closed method and irrigation of the cavity should be undertaken. Dakin's solution is contra indicated as it is too irritating. In the next step of the treatment a multiple stage complete extrapleural thoracoplasty must be performed. In this way a large cavity may be converted into a small shallow one

with only a scanty discharge and the patient restored to comparatively good health. In favorable cases the shallow cavity may be later unroofed packed with iodoform gauze and treated with quartz light and the resulting defect closed with a pedicled skin graft.

FRANK B BERRY M D

ÆSOPHAGUS AND MEDIASTINUM

Smith L A Diverticula of the Thoracic Æsophagus *Ann J Roentgenol* 1928 xiv 7

Prior to the use of the X ray diverticula of the thoracic Æsophagus were found only at autopsy. Carman collected fourteen cases seen in the period from 1890 to 1919 in all except one of which the diagnosis was made at X ray examination. In the period between 1919 and 1926 the author collected twenty seven cases and in this article he adds nine new ones. In three of the latter the sacculations were multiple.

These cases appear to indicate that the condition is probably rather frequent but is often not diagnosed because of the absence of symptoms. In only three of the cases reported by Smith were there any symptoms suggesting a pathological condition in the Æsophagus and in only one was there any evidence whatever of cardiospasm which has been considered an etiological factor.

Smith reports also two cases of non traumatic para Æsophageal hernia of the stomach associated with Æsophageal diverticula.

CHARLES H HEACOCK M D

Mosher H P Findings with the Barium Bougie in Cardiospasm *Ann Otol Rhinol & Laryngol* 1927 xxxvi 11 4

Mosher is inclined to the opinion that cardiospasm is a stricture which is hardly more than an inflammatory gluing of the deep longitudinal folds of the lower part of the Æsophagus favored by accentuation of the normal twist of the tube in this locality. For the study of this condition he has devised a barium bougie a rubber balloon filled with barium the lower end of which has a metal cap about a centimeter wide. This bougie is introduced into the Æsophagus by means of a whale bone staff and the Æsophagus then examined with the roentgen ray. Retching occurs only when the bougie rests in the lower Æsophagus; it does not occur when half of the bag is in the stomach and the other half in the Æsophagus the correct position when the X ray examination is made. More information can be obtained by this means than by direct observation through the Æsophagoscope. The author says: For years I have held that an examination at the lower end of the Æsophagus under local anesthesia and with small tubes amounted to little or nothing.

Six cases in which the barium bougie was used are reported. All showed a tubular narrowing of the terminal portion of the Æsophagus. The transverse and anteroposterior diameters of the narrowing were

practically the same in a given case. The diameter of the oesophagus was reduced to between a fourth and three fourths of the normal.

Mosher believes that the narrowing is due to a fibrosis of the mucous membrane and fibrous layers of the oesophagus. He came to this conclusion when he noted a very few peristaltic contractions during the roentgen examination. He states that such a case would not have occurred if the muscular layer had been involved to a great extent. He attributes the fibrosis to a previous infection of the lower part of the thorax or the upper part of the abdomen. He checked the oesophagus by continuity.

The barium bismuth also helps the lower end of the oesophagus is more or less fixed. When the lung tips fall and the patient is in normal conditions the lower end of the oesophagus is forced to a distance of the body for a distance of 3.4 in. and the normal growth of the phagus to the right is straightened out. A child given there is a total removal of the lower end of the oesophagus—a double motion which may easily be converted into a st.

The treatment of cardiac asthma is dilatation. The barium bismuth has proved of distinct value in relieving the symptoms, but as it is capable of delivering only about 5 lb of upward pressure the use of the diluence hydrostatic bag may be found necessary.

It has long been known that when the oesophagus is filled with barium up to a certain point—generally to the level of the arch of the aorta—it will dilate. If another proof that the obstruction at the term is partly related to slight. When patients with cardiac asthma present themselves for examination the oesophagus is found to be full of fluid. Sometimes the gas bubble of the stomach will pass the phagus from below.

Recently the author began to use a Seidlitz powder to empty the stomach filled oesophagus and found it of considerable aid. The gas generated dilates the oesophagus and makes its outlet established. It merely delays the barium to the stomach. In addition it produces a large gas bubble in the stomach against which the lower end of the barium fills the phagus and stands out very clearly. AIR & O M.D.

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Fairbairn J S and Sims T H Pseudomyxoma peritonei Associated with Ruptured Ovarian Cyst and Appendicular Disease *Proc Roy Soc Med Lond* 19 8 372

Fairbairn and Sims report a case of pseudomyxoma peritonei occurring in a nulliparous married woman forty seven years of age. The symptoms were those of mild intestinal obstruction and dyspnoea and palpitation on exertion. On examination the patient was found to be emaciated and anemic. The abdomen was distended and showed enlarged veins. The liver dullness was displaced upward. Dullness below the umbilicus and in both flanks was not associated with a fluid thrill. Paracentesis evacuated no fluid but a thick gelatinous material exuded following withdrawal of the trocar. On bimanual examination no swelling was found in the pelvis. A tap on the abdomen communicated a distinct impulse to the fingers in the vagina.

Laparotomy was followed by the extrusion of a large amount of gelatinous fluid. In the right ovary an intact cyst was found above and a ruptured cyst below. Both were excised and appendectomy was done. The appendix was coiled up in such a manner as to resemble a snail's shell. It was firm uniformly covered by gelatinous material and markedly congested. The peritoneum was generally injected and the omentum thickened and covered by adherent masses of the gelatinous material that could not be entirely removed.

The unruptured cyst was a dermoid containing sebaceous material and hair. The ruptured cyst presented the characteristic features of an ovarian cystadenoma. Histological examination showed the usual high cylindrical epithelium with basal nuclei and clear cell protoplasm but with an unusual number of clear droplets in the cells.

The appendix showed evidence of chronic inflammatory changes. The lymphoid tissue had largely disappeared. The cells of the mucosa were in a state of active secretion being swollen clear and in places tufted. The lumen was occupied by a central core of coagulated material undergoing organization with masses of mucus and enmeshed within it blood cells and detached portions of glandular epithelium. The core contained also connective tissue cells with well formed blood vessels. These vessels showed that the core was attached to and vascularized from the wall of the appendix. The epithelial covering of this core was similar to the cylindrical epithelium of the ovarian cystoma.

While no conclusion is drawn as to the relation between the conditions in the appendix and ovary the authors cite the possibility that the enlarge-

ment of the appendix was due to the implantation of active tumor cells from the ovary.

MANUEL E. LICHTENSTEIN M.D.

Waugh G E Congenital Malformations of the Mesentery A Clinical Entity *Brit J Surg* 19 8 438

Congenital malformations of the mesentery are a definite morbid entity of a chronic type which may be recognized before operation by careful clinical investigation.

The syndromes to which they give rise cannot be explained by any well known abdominal surgical disease nor by any purely functional disability which may be included under the term indigestion.

The most important physical sign is emptiness of the right iliac fossa associated sometimes with asymmetrical enlargement of the abdomen on the left side. These signs are due to the fact that the entire segment of the embryonic mid gut was involved in failure of rotation and fixation after reduction from the umbilical sac.

Röntgen investigation will prove more helpful in confirming the diagnosis when as a routine procedure barium is given by mouth until the shadow is seen in the small intestine and a barium enema then given so that a complete picture of the entire intestinal tract is obtained.

Operative treatment may effect a cure or may reveal a pathological condition for which treatment may be given.

HOWARD A. MCKNIGHT M.D.

MacAuley C Torsion of the Great Omentum A Note on Two Cases *Brit J Surg* 9 8 387

In the first of the author's two cases of torsion of the great omentum the pre-operative diagnosis was acute appendicitis and in the second appendicular abscess. In both cases the right portion of the omentum was involved and was adherent to the anterior abdominal wall. Characteristic of the condition was the lightness of the adhesions. The adherence of the omentum to the anterior abdominal wall was responsible for oedema of the parietal peritoneum. In cases with the latter condition and the exit of blood stained peritoneal exudate the possibility of omental torsion should be considered. At operation a pararectal incision is best.

HERMAN H. HUBER M.D.

Grausman P M and Jaffe H L Cystic Lymphangioma of the Greater Omentum *Ill S J* 19 8 155 66

Following a case report the authors state that they believe cystic lymphangioma to be true

blastomata arising in the greater omentum from undifferentiated mesenchyme which is capable of producing lymphatic vessels by proliferation of lymphagloblasts. Many of these newly formed lymphatic vessels become enlarged and cystic because of blockage of the outlets and possibly because they are blind ends. Some of the original lymphatic vessels are also obstructed and show secondary changes such as dilatation and proliferation of the endothelium. In the author's opinion the preformed lymphatic system is involved in the tumor growth.

(L. A. COIT, M.D.)

GASTRO INTESTINAL TRACT

Holme G. W. and Desser R. The Use of Amyl Nitrite as an Antipruritic in the Roentgen Examination of the Gastrointestinal Tract. *J. M. R.* 1919, 9, 31-44.

Thor's restriction of the term spasm to deformities of the stomach and duodenum which simulate an organic lesion. The term pylorospasm they use to designate failure of the pylorus to perform its usual function. They state that all spasms probably tend to a permanent condition, but a later date very often shows a change of condition or enterable condition.

Atropine has been used by us to relax spasms of the gastrointestinal tract. During the past year, thor's have employed amyl nitrite instead of atropine in our examination. Amyl nitrite has the advantage of producing an immediate effect on the esophagus and the upper part of the stomach to return on subsequent date. The fum of one drop is inhaled by the patient while lying on the horizontal table and the examination is made as soon as the patient becomes conscious of the temples lighted. In some cases, arm and hand fling into the air and result have been noted.

Amyl nitrite has been found specific in the examination of the intestinal tract of the colon.

(C. R. HILL, M.D.)

Case J. T. and Boldyreff W. N. The Influence of the Roentgen Ray upon Gastric Secretion. *J. K. R.* 1919, 9, 31-36.

Experiments with the influence of the roentgen rays upon gastric secretion and confluence. The authors attempted to study the results of the various doses of short wavelength roentgen rays upon both phases of gastric secretion. The first physiological phase is that produced by the appetite and the second or chemical phase is that induced by the action of extra-ubstinctive and absorbent products of digested food upon the gastric gland.

The physical phase was studied with a gastric tube and esophagotomy. Sham feeding for the first time was employed. For the study of the second phase dogs were prepared with an isolated stomach pouch after the method

of Heidenhain. In both phases the quantity of secretion was diminished although the effect was temporary in both cases. There was no alteration in the properties of the juice secreted. The return to normal was slower in the chemical phase than in the physical phase requiring about eight weeks.

The authors conclude that high voltage deep X-ray treatment acts only upon the functional activity without destroying the vitality of the digestive glands and that any result obtained in the treatment of gastric or duodenal ulcer is likely to be transient.

(CHARLES H. HEACOCK, M.D.)

Aris L. An Investigation into Defects in the Pyloric Portion of the Stomach. *Acta Med.* 1919, 7, 4.

The author describes various types of defects in the wall of the pyloric portion of the stomach. He states that he has often noted quite large defects which did not disturb peristaltic movements and in several cases found that they were caused by large folds of the mucous membrane. He discusses the procedure by which such defects may be differentiated from the defects produced by benign and malignant tumors and emphasizes the importance of recognizing them in order that an erroneous diagnosis of ulcer may be avoided.

Charles B. Cl. Meyer and Cunéo. The End Results of the Treatment of Gastric Ulcers by Gastropylorotomy. Kocher's Operation. *Le Révélateur Médical* 1919, 1, 387.

In seventeen of the twenty-seven cases discussed by the authors gastropylorotomy by Kocher's method was done for ulcer of the pylorus in nine for ulcer of the lesser curvature and in one for ulcer of the duodenum. Twenty-five of the patients could be considered cured. Two had had a other operation. In twenty-one cases the cure was complete all subjective and objective symptoms had ceased. The cure had been a gain in weight and the patient was not obliged to follow a diet. Four patients complained of slight gastric disturbances and a feeling of heaviness after meals. In two cases a complaint was made of a loss of weight, anorexia, vomiting and pain but no recurrence of the ulcer could be found.

In the group of cases in which the cure was complete X-ray examination showed the stomach to be small but tending to increase slightly in size with the lapse of time since the operation. Irregularities in the lesser curvature which were noted in some instances corresponded to the suture of the part of the stomach which formed the lesser curvature sectionally. Evacuation although not entirely regular was quite similar to that of the normal stomach.

In the cases with slight gastric disturbances the shape of the stomach suggested a bagpipe and evacuation was slower sometimes taking two hours.

In the cases with more marked disturbances the stomach was hilocular with a deep fixed niche on the greater curvature and the omentum was folded back toward the top

ANNA L. PACE

Pickhardt O C Concomitant Gastric and Duodenal Ulcers Two and One Half Years Post operative *Ann St g* 19 8 lxxvii 143

Pickhardt reports the case of a woman fifty eight years of age who was suddenly seized with sharp cramp like pain in the right upper quadrant of the abdomen. The pains did not radiate and were not associated with vomiting or anorexia. The patient stated that thirty years previously she was in bed for two days with abdominal cramps and that two years ago she had had another attack of sharp pains localized in the right upper quadrant of the abdomen.

Physical examination revealed a smooth firm and fixed tender mass in the right upper quadrant in below the costal margin and 1 in. to the right of the umbilicus. The test meal showed a slight increase in acidity. The blood chemistry and blood count were normal and the Wassermann test was negative. The feces showed a trace of blood. The X ray revealed (1) a penetrating ulcer in the middle third of the lesser curvature of the stomach (2) an annular growth at the pylorus causing obstruction and (3) deformity of the pylorus suggesting scarring and ulceration. There was no evidence of vigorous peristalsis. Retention was marked.

Operation revealed on the anterior surface of the duodenum just distal to the pyloric vein a freshly perforated ulcer which had attached itself to the peritoneum opposite and to the right of the umbilicus causing the stomach to twist upon itself. At the juncture of the first and second parts of the duodenum posteriorly there was a large soft and slightly indurated mass which showed through an area of redness and scarring when the duodenum was turned. At the lesser curvature about midway between the pylorus and the cardia there was a soft mass measuring 1 by 1 cm at the posterior aspect of the stomach. On the anterior surface of the stomach midway between the lesser and greater curvatures there was a small bealed area with very little induration which was attached by long old adhesions to the gastrosplenic ligaments.

A posterior gastro enterostomy was performed and before closure the omentum was placed over the healed ulcers.

The posterior course was normal until the eighth day when the patient began to vomit foul dark material in which a large ascaris lumbricoides worm was found. The vomiting continued for three days and then ceased under treatment by lavage.

An X ray examination made before the patient's discharge from the hospital showed the barium meal passing through both the pylorus and the stomach. The stomach emptied completely in four hours. One year later the findings were practically the same.

HARRY W. FINE M.D.

Junghagen S Lymphogranulomatosis of the Stomach (Lymphogranulomatose im Ventrikel) *Leta radiol* 19 7 viii 317

The author describes two forms in which lymphogranulomatosis may occur in the stomach. In one it is part of a generalized condition and in the other the tumor form it is restricted to the stomach.

In the first form the roentgen picture resembles that of gastric ulcer unless multiple ulcers in an extensive indurated area and the failure of conservative treatment suggest malignancy.

In the second or tumor form which is usually found in the pyloric canal there is a quite circumscribed tumor which causes stenosis of the lumen. When the lymphogranulomatous granulation tissue does not involve the muscularis or infiltrates it only slightly there is a certain motility of the outline which with marked distinctness of the cuff shaped and quite extensive area of stenosis may be considered characteristic of this stage of the condition. In other respects the roentgen picture resembles most closely that of a malignant tumor.

The author suggests that linitis plastica may be identical with lymphogranulomatosis of the stomach.

Balfour D C The Principles of Gastric Surgery *M. resolutio* 192 102 v 68

Balfour D C The Management of Lesions of the Stomach and Duodenum Complicated by Hemorrhage *J Am M Ass* 1927 lxxv 166

Balfour D C The Results of Operation for Duodenal Ulcer in Physicians *Ann Surg* 1927 lxxvii 691

In discussing the principles of gastric surgery Balfour says that the more the experience acquired in the surgical treatment of lesions of the stomach the greater the conviction that progress in the management of peptic ulcer will depend on a more intelligent selection of cases for operation and a better appreciation of the general principles of those operations which experience has shown to be worthy of application. The selection of the operation depends upon many factors the chief of which are the condition of the patient the stage of the disease the situation and character of the lesion and the complications associated with it.

The value of posterior gastro enterostomy is proved beyond any doubt since in properly selected cases this operation not only brings about a complete and permanent cure of symptoms but has an advantage over all other types of operation for lesions of the stomach and duodenum in that it is non destructive. Its greatest value is in the treatment of duodenal ulcer associated with obstruction. It is frequently necessary in cases of gastric ulcer in which it is used with local excision to protect against further ulceration and motor mal function. In cancer of the stomach posterior gastro enterostomy occasionally affords great relief when there is marked obstruction and the growth is small but irremovable because of penetration into extragastric tissue.

Anterior gastroenterostomy is an excellent substitute for posterior gastroenterostomy and has the same advantages. The disadvantage of anterior gastroenterostomy, namely, that in some cases the proximal loop does not drain satisfactorily, can be obviated by carrying out an antroanastomosis.

Pyloroplasty is occasionally preferable for chronic duodenal ulcer or chronic gastric ulcer when the lesion is in the pyloric end of the stomach. The chief objection to pyloroplasty is the fact that in a considerable percentage of cases of duodenal ulcer there are multiple lesions. On the other hand, the procedure is valuable in the bleeding type of ulcer because it may include a fistulotomy of the lesion and if a recurrence of ulcer at the same place subsequently, a second operation usually gives gastroenterostomy can be carried out without great difficulty.

In cases with marked obstruction, a high gastroenterostomy, contraindicated because of technical difficulties and the duodenal enlargement, is a satisfactory opening between the stomach and duodenum in front of the site of obstruction. Gastroduodenostomy is a valuable procedure.

Partial duodenectomy is employed in the following cases: those of the bleeding type. While it has limited indication, it is an important procedure in life when it can be satisfactorily carried out.

Jejunostomy is occasionally of great value in cases of high lying benign and malignant lesions of the stomach and duodenum.

Partial gastrectomy affords the only possible cure for gastric carcinoma. It is nevertheless a difficult type of operation for which great caution and careful selection of cases is necessary. In recurrent ulcers following operations. As a primary procedure for chronic duodenal ulcer it is unattractive and never becomes an operation of choice. The two main types of gastric resection are the Billroth I and its modifications and the Billroth II and its modifications. For gastric carcinoma the latter type is the more satisfactory. The chief indication for partial gastrectomy in cases of gastric ulcer is the large ulcer with a deep crater and extensive induration about the ulcer. The possibility of such lesion may be malignant necessitates total or subtotal gastrectomy is indicated also when other operations have failed to cure a chronic peptic ulcer.

In discussing the management of lesions of the stomach and duodenum complicated by hemorrhage, Balfour states that in cases of peptic ulcer death rarely results from a single massive hemorrhage but may result not only because of continuous bleeding although with proper management of the case this is rare. For the reasons and because it is attended by a higher mortality than nonoperative measures, the surgical treatment of acute massive gastric hemorrhage regardless of its cause is a decided requirement. However, when hemorrhage from a peptic ulcer recurs before the patient has fully recovered from the total

hemorrhage operation preceded by transfusion should be performed as an emergency procedure for secondary hemorrhage.

Duodenal ulcer is the most common cause of hemorrhage from lesions of the stomach and duodenum. Of the 1072 cases of duodenal ulcer in which operation was performed in the Mayo Clinic during 1921 and 1922 there was a history of proved gastric hemorrhage in 18 per cent. The cause of the bleeding is not always clear; in some cases there may be a direct erosion of the gastroduodenal or superior pancreaticoduodenal artery but in others no gross defect in the mucosa of the duodenum can be found. In making a diagnosis in the cases it must first be established that the hemorrhage is primarily from the stomach or duodenum. Extrinsic causes should then be excluded although both extrinsic and intrinsic causes may be present in the same case. It may be safely asserted that duodenal ulcer complicated by hemorrhage is a surgical condition. The possibility of operation should be carefully weighed when hemorrhage has occurred in a patient whose cause of age or other factors is poor condition for operation. Transfusions judiciously used before operation and if necessary, after operation, are of great value but much to the rapidity and completeness of the recovery. There is a steady increasing tendency toward direct operation in cases of bleeding duodenal ulcer generally an erosion of the lesion but if the duodenum can be satisfactorily mobilized partial duodenectomy may be performed.

Of the cases of gastric ulcers in the series reviewed there was a complication of gross hemorrhage in 10 per cent. Fatal hemorrhage from a gastric ulcer may occur but is rarely a primary hemorrhage. The pertinent clinician and roentgenologist to gether usually determine the presence or absence of gastric ulcer. If a negative report is given on a postoperative examination a search at operation for a lesion of the stomach will usually be fruitless. In cases of gastric ulcer complicated by hemorrhage the indication for operation are more positive than in cases of duodenal ulcer and the management is on a definite basis. The advisability of operation should be questioned only when the condition of the patient presently prohibits such treatment. The results of a series of types of operation show that so far as the control of hemorrhage is concerned removal of the lesion offers definitely greater protection against further hemorrhage than an indirect operation, gastric enterostomy or jejunostomy.

Gross hemorrhage from primary gastric cancer is rare, occurring in 7.5 per cent of the cases in the series reviewed. Gross hemorrhage from cancer has no particular surgical significance except the important fact that it suggests a lesion other than cancer. Hemorrhage while somewhat rare in the early stage of carcinoma may be most distressing in the later stages and removal of the lesion at operation aside from the prospect of cure in favorable cases is a protection against the distressing complication.

Although benign tumors of the stomach are rare in about 10 per cent of the fifty eight cases in which operation was performed at the Mayo Clinic there had been a history of gross hemorrhage. Marked secondary anemia however was common in these cases. The surgical treatment of benign tumors can practically always be carried out satisfactorily. The majority of such neoplasms are in the pyloric end of the stomach and can be removed with facility through an incision in the anterior wall but in cases of certain large tumors particularly those in which malignant degeneration is suspected partial gastrectomy is preferable.

Balfour's report on the results of operation for duodenal ulcer in 100 physicians was compiled for several reasons the most important of which were that the cases were carefully selected representing the chronic case in which operation is clearly indicated and that as physicians have difficulty in carrying out a postoperative regimen which demands regularity in habits of living and eating the results of surgical treatment in this group should be more than a fair test of its value.

The average age of the patients was forty seven years and the average time since the onset of symptoms was thirteen years. The operations performed were posterior gastroenterostomy in 89 per cent, excision alone in 6 per cent, anterior gastroenterostomy in 3 per cent and gastroduodenostomy in 1 per cent.

A summary of the results of these various types of operation shows that in 84 of the 100 cases the outcome can be classified as completely satisfactory. In 6 of the 100 cases relief has been incomplete but since all of these patients considered that the operation had been worth while the operation may be classified as successful in a total of 90 per cent. Five of the 100 patients have had a secondary operation and the remaining 5 report persistence of symptoms of such a character that the operative treatment must be classified as a failure although 3 of the 5 attribute their symptoms to disease of other organs particularly the gall bladder.

If results are estimated from the standpoint of what can be accomplished by a policy of conservative operation for duodenal ulcer followed by a secondary operation if symptoms recur the present condition of the patients demonstrates that the result of conservative measures is satisfactory in 93 per cent of the cases. The source of this information seems to establish the fact that a conservative attitude toward the treatment of duodenal ulcer is sound.

Borchers E. Successful Resection of the Upper Half of the Stomach (Erfolgreiche Resektion der oberen Magenhalfte). *München med Wochenschr.* 1917 1: 1454.

Borchers reports the case of a patient fifty one years old in whom he successfully resected the upper half of the stomach for carcinoma. For the anastomosis of the esophagus to the stump of

stomach it must be possible after incision of the peritoneum to pull the esophagus well down and to apply it to the pyloric portion of the stomach with ease. As long as a portion of the esophagus as possible must be covered by gastric mucosa according to Einman's method. This serosa should be sutured around the esophagus and the stomach fixed to the diaphragm.

In Borchers's opinion resection of the upper portion of the stomach for carcinoma should be performed more frequently as in this region the lesion is relatively less malignant than in other parts of the stomach. The results will improve when the operation is developed as a typical strictly abdominal procedure.

STARK (Z)

Demel R. The Nutrition of the Intestine After Ligation of the Vessels in the Mesentery. Practical Recommendations Based on Experiments on Animals (Zur Frage der Ernährung des Darmes bei Gefäßunterbindung in Mesenterium. Vorschläge für die Praxis auf Grund von Tierversuchen). *J. f. kl. Chir.* 1927 c 1: 701.

Demel reports a large number of experiments carried out on dogs to study the nutrition of the intestines after ligation of the vessels of the mesentery. Previous experiments had shown that it makes a difference whether the mesentery is severed close to the bowel or farther away. The experiments here reported were made to determine which vascular branches in the mesentery can be interrupted and at what points in their course this can be done without danger.

In various series of experiments ligatures were placed at different points on vessels of the first and second order, terminal, marginal and radial branches. It was found that after ligation of vessels of the first order proximal to the point where branches of the second order are given off good nutrition of the bowel was maintained only if not more than two adjacent branches of the first order were ligated. If three or more branches were ligated gangrene of the bowel resulted. Ligation of branches of the second order was associated with less danger to the nutrition of the intestine as many as four adjacent branches of this order could be ligated. Ligation of a terminal branch caused no disturbance. Ligation of the radial branches was very dangerous and could be performed only at a distance of 4 cm.

These results show that when ligation of the vessels of the mesentery is necessary the ligation of vessels of the first order should be avoided if possible. Ligation of branches of the second order is better and permits the liberation of large segments of intestine from the mesentery without danger of gangrene. In the ligation of terminal radial and marginal branches great care is necessary.

In experiments on the ligation of vessels of the mesocolon no disturbances resulted when the colica media was ligated. The colon could bear ligation of a radial vessel for a distance of only 3

cm As the colon of the dog has a much richer blood supply than the colon of man these findings emphasise the importance of special care in the ligation of radial vessels of the human colon

DE C S (2)

Jayle F. End m triosis of the Inte t ne v d the
F ception of the R ctum (L l m d
l t t t m ept) R f c d g t t
d b t o 7 xi 36

This is an active review of the literature on endometrosis of the intestine.

The condition occurs most frequently in the third and fourth decade of life and is frequently associated with sterility.

The neoplasm apparently as a like plagues
 containing black and purple and are located
 the entire mesentery. The covered hy-
 pothymus. Often the peritumour is thick and
 the adherent a hypoplastic pe-
 titis. Occasionally the growth may attain the
 zodiacal ring. Adhesion to duodenum
 is the rule.

As the symptoms are not characteristic the condition discovered when it is ascertained that the patient is also symptomatic producing adhesions or tumor include the lumen of the intestine.

The diagnosis is a viral infection made by microscopic examination of the meninges. Latent infection is the most common. The endometrial infection is usually recurrent. In the appendix endometrioses, discoid only on microscopic examination of the follicles. Appendicitis for chronic appendicitis.

the treatment of intestinal infestation is pre-emptive. When the infestation comes before the onset of clinical signs, the treatment may be prophylactic. In the case of infestation after the onset of clinical signs, the treatment may be therapeutic.

Step 1 n V R A ute Intu us pt on M nipu
lative R duct on unde Flu o copic Control
A J D Cl Id 9 8 6

Stephens reports that the manipulation of the electron beam in the cathode ray tube of a television set can produce a beam of x-rays. This method is previously described by Peter

And that is a necessary. O is a small amount of
of a um inge tel t a m and the man pulation
of a are gently applied at that point at which the
enem m ts the tu sus pton A gn r us
trickle of ba u int the leum is e dence f com
plete reduct If there s any d ubt concern
th compl tene s f the reduct o the hdomen
should b xplored at o e

Should be concluded that manipulation of the reduction
attempted in the case. When the
cellular biological characteristics are reduced and pro-
posed surgical treatment can be instituted immediately.

JOHN H. GAROCK, M.D.

Oleic Acid and Duodenal Regulation as a Factor in the Neutralization of Gastric Acidity

In his studies of duodenal regurgitation Olchese has chosen histamine as a standard stimulant for the secretion of gastric juice because it is stable and as it is administered by hypodermic injection dilution of the gastric secretion is avoided. He calls attention to the fact that the results of the usual test meal are unsatisfactory on account of the variable chemical composition of the substances ingested. A change in the reaction of the gastric contents due to the administration of salt and the influence of the psychic phase on gastric secretion.

The curve obtained after the intramuscular injection of 1 mgm of histamine into the normal dog is shown in the stomach as emptied every ten minutes and to control of the gastric contents were titrated with tenth normal sodium hydroxide. The percentage and phenolphthalein being used as indicator. The effect of the drug as noted in the first aspirate and the highest degree of acidity

the first aspirin, and the highest degree of acidity as reached from the 10 to 40 minutes after the injection. This was equivalent to 0.45 per cent hydrochloric acid, slightly less than the degree of acidity of pure gastric juice as secreted. Variations were not marked in normal dogs in no case being more than ten during the first sixty minutes of the experiment. The amount of fluid withdrawn from the stomach represented gastric juice minus an amount lost through the pylorus plus an amount added by the regurgitation of the duodenal fluid.

When a mod rate amount (0.05 cm) of 0.5 per cent hydrochloric acid (the concentration at which gastric hydrochloric acid is secreted) is introduced into the stomach the acidity decreases in degree as the fluid leaves the stomach. This decrease is caused by neutralization of the acid by regurgitation of the alkaline duodenal fluid which is composed of pancreatic juice, bile and succus entericus. The pancreatic juice is the most important of these three secretions because it is produced in large amounts when the degree of acidity of the stomach is high and also because its alkalinity is much greater than that of the two other fluids. This regurgitation of pancreatic juice, which was first noted by Boldyreff and called by him the 'self-regulating mechanism' of the stomach, is a constant occurrence in the eating as well as the active stomach. Pancreatic juice is secreted in direct response to gastric acidity and one of its functions is to neutralize the latter before the acid reaches the much more sensitive intestinal mucosa.

In experiments carried out on dogs to determine the influence of nervous control on the secretion of the stomach branches of the vagus nerve were sectioned: intrathoracically and abdominally and by circumscision of the prepyloric part of the stomach. The results obtained were uniform regardless of the site of the section. In every case the degree of gastric acidity was diminished apparently because of the more atonic condition of the pylorus.

The author comments upon various procedures performed upon the stomach for ulcer. As a rapid decrease in acidity is the ideal result to be obtained he believes that resection and pyloroplasty offer the greatest promise of cure because they favor regurgitation of the duodenal contents with resultant neutralization of the acidity. He does not favor gastroenterostomy. MORRIS A. SLOCUM M.D.

Wheeler Sir W. I. DeG. A Case of Actinomycotic Ulceration of the Duodenum and Jejunum. *Brit J Srg* 1938 xv 430

So far as can be ascertained from the literature ulceration of the duodenum from actinomycotic infection is very rare.

The case reported by the author was that of a man forty years of age who had been suffering for four months from vague abdominal pains, loss of weight and appetite and gastric stasis. On the patient's admission to the hospital his temperature ranged from 99 to 101 degrees F and he showed definite cachexia. After his admission he had a severe attack of hæmatemesis. Examination revealed tenderness and some rigidity above the umbilicus. Hydrochloric acid was absent from the stomach contents.

X-ray examination showed the stomach to be dilated and hypotonic. There was diffuse narrowing of the pyloric segment with gross irregularity of outline in both curvatures. A diagnosis of pyloric obstruction due to carcinoma was made.

At operation in which the abdomen was opened in the midline above the umbilicus a loop of jejunum about 1 ft from the duodenojejunal flexure was found to be the site of a tumor and adherent to the omentum and the neighboring coils of intestines on its surface. The tumor was red and acutely inflamed. In two or three places perforations closed by loose adhesions passed through the inflamed area into the lumen of the intestine. The loop of jejunum was resected and an end to end anastomosis done.

On the eighth day after the operation the patient experienced a sudden pain probably due to perforation and died a few hours later.

At autopsy the third portion of the duodenum was found to be ulcerated in much the same manner as the resected loop. The cause of death was leakage at the line of anastomosis.

The portion of intestine removed at operation showed two perforations. Except for the inflammation in the immediate vicinity of the perforations there was relatively little peritonitis. The mucous surface presented two transverse ulcers which were partly confluent and extended circularly around almost the entire circumference of the intestine. The edges were ragged and partly undermined and there was a red line of intense inflammation about their margins. The floors of the ulcers were shaggy and covered by a dark green adherent slough.

Microscopic sections showed the surface of the ulcer to be covered by necrotic material containing a moderate number of pus cells and many bacteria.

Beneath this the inflammation was of a more or less subacute or chronic type. Plasma cells were very numerous and the general background of the structure was that of granulation tissue. This inflammatory process extended down to the muscular layers. The bacteria in the slough were cocci and bacilli. Some of the latter were long and filamentous. In the floor of the ulcer there were several clumps of microorganisms composed of branching partly beaded filaments arranged in a radiating fashion and of a type closely resembling the streptothrix.

Autopsy showed the second and third parts of the duodenum also to be perforated and revealed a large ulcer beginning at the bile papilla and extending lengthwise as far as the duodenojejunal flexure and circularly around the entire circumference of the bowel. The ulcer resembled the lesion previously found but was more extensive and had a more shaggy greenish base. Its floor was composed of a ragged mass of necrotic tissue.

The patient had suffered from a rare severe ulcerative condition of the duodenum and jejunum. The ulceration was of an almost diphtheritic type with comparatively little suppuration. The tissue reaction being mainly of the plasma cell type with lymphoid cell infiltration. Many microorganisms were found in the superficial sloughs but the preponderating one was of the streptothrix type. Organisms of the ray fungus type were found in the floor of the jejunal ulcer but only in the slough of the duodenal ulcer. No streptothrix was found in the lymphatic glands. According to Cope secondary deposits of this organism in lymphatic nodes are unusual.

HOWARD A. MCKNIGHT M.D.

Schlanger P. and Flinohetto R. Ulcer of the Duodenum, Snail Stomach, and Partial Insufficiency of the Pylorus (Úlcera del duodeno, estómaco en caracol e insuficiencia parcial del píloro). *Semana med* 1927 xxiv 1993

In the case of a patient thirty two years of age who was admitted to the hospital with the symptoms of gastric ulcer roentgen examination showed the picture of the condition variously called snail stomach, tobacco pouch stomach and U shaped stomach. There was retraction of the lesser curvature with displacement of the pylorus upward and to the left (toward the cardia) and displacement of the prepyloric portion of the greater curvature upward and to the right. There was also insufficiency of the pylorus. This picture is caused by spastic retraction of the lesser curvature due to ulcer of the lesser curvature or the duodenum.

AUDREY G. MORGAN M.D.

Thompson W. and Stewart M. J. A Remarkable Example of the Tendency Toward Recurrent Peptic Ulceration Following Gastroenterostomy for Duodenal Ulcer. *Brit J Srg* 1928 xv 517

The author reports the case of a patient who was subjected during a period of sixteen years to five separate operations upon his stomach. Four gastro

ulcerative colitis. In the event of ease an ileostomy was performed during an acute exacerbation after the patient's dismissal.

Caraven and Basset Strictly Mechanical Obstruction of the Intestine without Abscess or Peritonitis in the Course of an Initial Attack of Appendicitis (Occlusion intestinale strictement mécanique sans abcès ni péritonite au cours d'une première crise d'appendicite) *Bull. et mém. Soc. nat. de chir.* 927 110 1104

Basset reports a case of complete intestinal obstruction which was treated by Caraven. The patient was a girl eighteen years of age who gave a history of a rather severe attack of pain in the lower abdomen twelve days previously. Before that attack she had never been ill. When she was examined by Caraven the abdomen was relatively flat but dilated loops of bowel could be seen through the abdominal wall. No peristalsis was noted. Palpation revealed slight tenderness just below and to the right of the umbilicus. Just above the pubes there was slight oedema. No tenderness was found over McBurney's point. Rectal examination revealed in the cul de sac a mass which had the elasticity of a cyst. The pulse was 90 and the temperature normal. The pre-operative diagnosis was intestinal obstruction due probably to paralysis caused by a pelvic abscess of appendicular origin.

At the time of operation which was unavoidably delayed the temperature was subnormal. The pelvis was found filled by the distended ileum. There was no peritonitis or abscess. The inflamed but not perforated appendix was pointed upward toward the umbilicus and was adherent at its tip to the small bowel at about the junction of the jejunum and ileum. During the liberation of the adhesions the jejunum was perforated. The patient died a few hours after the operation. **MICHAEL MASOV M.D.**

Brennemann J. Abdominal Pain of Throat Infections in Children and Appendicitis *J. Am. M. Ass.* 1927 LVIII 2 83

In the course of throat infections in childhood there frequently occurs a peculiar abdominal pain that is of great importance in the differential diagnosis of abdominal conditions in which pain is the cardinal symptom. Among the most important complications which may arise in the course of infections in the nose and throat is appendicitis. The nose and throat conditions to which the author refers comprise the whole group of non-specific sporadic endemic epidemic pandemic febrile infections that have their primary focus in the nose and throat and are variously called tonsillitis pharyngitis nasopharyngitis or throat cold bronchitis upper respiratory tract infection angina glandular fever grip and influenza.

There are two types of abdominal pain. The first type is more frequent than the second and occurs early. It is usually intermittent or colicky and accompanied by little or no tenderness either at its

site or elsewhere. It is practically always referred to the region of the umbilicus and nearly always if the patient is questioned closely to the umbilicus itself. The second type of pain is less sharply defined usually less severe and more apt to be intermittent than constant. It may be localized anywhere in the abdomen but occurs most often at the umbilicus or in the lower right quadrant. There is practically always an accompanying tenderness especially if the appendix is involved. In some cases a mesenteric lymphadenitis may be present.

The author has for years noted that in children appendicitis often occurs as a complication or sequel of throat infection. On the basis of this observation he has formulated the following concept: Throat infection abdominal pain appendicitis. He cites the opinion of Evans of the University Clinic Madison Wisconsin that appendicitis is apt to occur just after rather than during an infection of the upper respiratory tract.

In conclusion Brennemann states that enteritis is a frequent complication of throat infections and that non-appendicular pain in the abdomen is a much more common accompaniment of throat infection in children than pain due to inflammation of the appendix. **CHARLES F. DUBOIS M.D.**

LIVER GALL BLADDER PANCREAS AND SPLEEN

McIndoe A. H. and Counsellor V. S. The Bilaterality of the Liver *Ch. S. g.* 927 x 589

The right and left branches of the portal vein are regularly and definitely divided along a line from the fossa for the gall bladder to the entrance of the hepatic veins into the inferior vena cava. Except for the intercellular sinusoids which are probably insufficient to maintain a collateral circulation there is no gross anastomosis across the line of separation.

The right and left branches of the hepatic artery are also separated in the same manner and at the same situation. There is an arteriolar anastomosis between the right and left sides chiefly between the capsular and vaginal branches but it is not sufficient to prevent infarction of the corresponding lobe following occlusion of either branch.

The line of separation of the right and left hepatic ducts is identical with that of the artery and vein but the division is absolute. The facts of embryology, anatomy and pathology are in accord with the assumption that the two areas of liver determined by this division which is common to the three vessels represent the true embryological right and left hepatic lobes and that the falciform ligament is merely an arbitrary landmark.

Snell A. M. and Rowntree L. C. The Functions of the Liver and Tests of Their Efficacy *O. J. State M. J.* 92 x 99

During the last decade considerable progress has been made in the study of the liver and its

d cases. Light has been thrown on the physiology of the liver and on disturbance in its function in disease. Treatments fifteen years ago were looked upon as of only academic interest. It has now acquired considerable importance in the practice of clinical medicine. Although the results have failed to prove of great value in prognosis they have helped materially in the recognition of the presence and nature and treatment of functional disturbances. They afford valuable information also as to whether the disease is primarily stationary or improving thus indicating the prognosis and treatment. In addition they tend to cause a more thorough clinical study of patients suffering from hepatic disease and help lead to individualization on treatment and the establishment of treatment on a more rational basis.

G. M. L. and Basset A. Case of Traumatic Rupture of the Liver. Early Operation. The patient had been struck by a telegraph pole. The right side of the chest in the upper quadrant of the abdomen on the right side. The injury caused extreme pain but no hemorrhage. The patient died one hour after the accident. General bilateral rigidity of the abdomen. All operations on the slightest touch and pressure. The patient died. The patient died.

Basset reports case of traumatic rupture of the liver. The patient was struck by a telegraph pole. The right side of the chest in the upper quadrant of the abdomen on the right side. The injury caused extreme pain but no hemorrhage. The patient died one hour after the accident. General bilateral rigidity of the abdomen. All operations on the slightest touch and pressure. The patient died. The patient died.

Operation. The patient was struck by a telegraph pole. The right side of the chest in the upper quadrant of the abdomen on the right side. The injury caused extreme pain but no hemorrhage. The patient died one hour after the accident. General bilateral rigidity of the abdomen. All operations on the slightest touch and pressure. The patient died. The patient died.

Intra-abdominal. The patient was struck by a telegraph pole. The right side of the chest in the upper quadrant of the abdomen on the right side. The injury caused extreme pain but no hemorrhage. The patient died one hour after the accident. General bilateral rigidity of the abdomen. All operations on the slightest touch and pressure. The patient died. The patient died.

Basset et al. The patient was struck by a telegraph pole. The right side of the chest in the upper quadrant of the abdomen on the right side. The injury caused extreme pain but no hemorrhage. The patient died one hour after the accident. General bilateral rigidity of the abdomen. All operations on the slightest touch and pressure. The patient died. The patient died.

Schultz and Pott also maintained that blood in the abdomen does not cause rigidity.

Basset cited a number of intra-abdominal conditions which may give rise to abdominal rigidity in the absence of peritoneal infection—renal colic, hepatic colic, lead colic, perforation or gastric or duodenal ulcers with the development of rigidity simultaneously with the pain and before the occurrence of infection and the subacute crises of mesenteric cysts—and reported a case with marked rigidity in which operation failed to reveal peritonitis.

In discussing Basset's conclusions, Lescene stated that in at least 90 per cent of cases with a distinct reflex contraction of the abdominal muscles a subadjacent peritoneal infection should be thought of first but if the contraction has been preceded by a severe injury the possibility of rupture of a vessel should be considered. (McNair et al., Masow, McD.)

Sneff, A. M., and Weir, J. F. Diseases of the Liver and Bile Passages. J. A. M. A. 1911, 9, 1.

At the present time a number of new clinical and laboratory criteria for the study of hepatic disease are available. These additions to our armamentarium should be of assistance in the management of diseases of the liver. While there have not been any noteworthy advances in the cure of hepatic disease, a number of symptomatic remedies have been introduced which seem to be of definite value. The preoperative preparation and postoperative management of jaundiced patients have been improved. A variety of measures have been successfully employed for the treatment of various types of jaundice operative or non-operative.

While much of the treatment mentioned is empirical, clinical and experimental evidence seems to justify its use. The small successes thus far attained should encourage further studies in the treatment of hepatic disorders.

McNair, C. S., and Fitts, W. T. Clinical Aspects of Jaundice. J. Am. M. A. 1911, 9, 1.

McNair and Fitts emphasize the importance of a clear differentiation between surgical and nonsurgical cases of jaundice. This presents great or less difficulty but is facilitated by a period of close observation of the patient in a hospital. While both clinical and laboratory investigations are being carried out, measures may be instituted to counteract the danger of operating. The presence of jaundice should surely be decided upon.

The authors have not gained much assistance from the current classifications of jaundice based on pathological clinical observation or autopsy data. They believe that the essential factors for a proper classification are the jaundice, the reaction of the serum pigment curve, the quantity of bile reaching the duodenum, and the presence and character of pain.

They favor McNair's classification but find it difficult to distinguish infective from cholestatic jaundice. If hemolytic jaundice is omitted, the differential points narrow down to pain, excess of bile to the intestine, and the serum pigment curve.

The authors discuss the significance of the presence and nature of pain in the diagnosis of stones pressure on the duct distention of the liver and malignant disease and the significance of recurrent pain after operation. Severe colic after an operation for stones does not always indicate recurrence of stone. In the authors' series of cases of benign stricture without stones there was a history of severe colic in 90 per cent.

The significance of high concentration of bilirubin in the blood is discussed particularly in relation to carcinoma of the pancreas. The authors did not encounter this disease in patients under the age of thirty-nine years. While carcinoma of the pancreas occludes the duct, absence of bile from the duodenal contents is not an infallible diagnostic point. The duodenum may not have been reached or intrabiliary disease may have interrupted the flow. The authors recommend repeated duodenal drainage to obviate these sources of error.

The advantages of determining the bilirubin in the serum are presented. The changes in level occur more quickly than the visible manifestations of jaundice and when the level is high changes cannot be measured by clinical observation. The authors prefer the van den Berg method to the Meulengracht method for various reasons including the advantage of the information conveyed by the type of reaction.

Cholecystitis seldom calls for a determination of the concentration of serum pigment.

Of the less important signs the authors find few of much significance in determining the origin of the jaundice. Variations in the color of the skin and the presence of pruritus have no constant significance. Courvoisier's law is not as well supported clinically as it is at autopsy, and interpretation of the findings of palpation in the region of the gall bladder is hazardous. Bradycardia in jaundice the authors characterize as almost a myth.

Tests of function have not been of value in diagnosis because structural injury does not go hand in hand with impairment of function and even if dysfunction is present its degree cannot be made the basis for diagnostic conclusions. The examination of the urine for urobilin or urobilinogen has not found as much favor with the authors as with others since the cardinal question is whether or not bile is reaching the intestine. This can be determined more accurately and directly by siphonage of the duodenum. A case is cited in which the urobilinogen test was misleading.

Tests of pancreatic function are uncertain because enzyme activity depends on other constituents of the duodenal juices. Moreover the common bile duct may be occluded by a pancreatic tumor when the pancreatic duct is patent.

The measures to be taken to reduce the risk of hemorrhage are reviewed. The method of administering calcium chloride is described. Transfusion is necessary if delay in coagulation persists. It may be necessary to repeat these measures.

Heyd C G Acute Hepatic Degeneration Cholecystogastrostomy *Ann Surg* 1928 LXXVII 146

Heyd reports the case of a man twenty-six years of age who entered the hospital complaining of jaundice nausea vomiting weakness and mental depression. During the previous six weeks he had lost 10 lb. His illness began about two months previously with fever and weakness. The jaundice first appeared about two weeks after the onset of the fever increased in intensity for about three weeks then faded and after an interval of a few days recurred with fever and vomiting. There was no pain but the condition was associated with considerable eructation of gas. The patient stated that his stools were gray. His previous surgical history included a mastoid operation a septum operation tonsillectomy and adenoidectomy.

The physical examination was negative except for tenderness in the right upper quadrant of the abdomen and a palpable liver and spleen. A tentative diagnosis of obstructive jaundice—probably of toxic origin—was made. The leucocyte count was 11,800 and the platelet count 24,000. The Wassermann test was negative. The icterus index was 100. The van den Berg direct test was $+$ the van den Berg indirect test $3+$ and the Fouchet test $3+$.

X-ray examination of the gall bladder region revealed no evidence of calculi. The right lobe of the liver was markedly enlarged but its free border was quite smooth. X-ray examination of the kidneys was negative. X-ray examination of the gastrointestinal tract was also negative except for colonic spasm and stasis in an irregular segmented appendix. The stools were uniformly clay colored.

At operation the liver was found to be twice the size that is normal for the patient's age weight and stature. There was no evidence of fibrosis of Glisson's capsule. The abdomen contained about 300 c.c. of pale amber ascitic fluid. The gall bladder was thickened but without stones. The common duct was narrow but not thickened. The lymph glands at the juncture of the cystic and common ducts were enlarged. The pancreas was softer than normal. The gastroduodenal segment was negative. The lower abdomen was not explored. The operation consisted in cholecystogastrostomy with application of the gall bladder to the lesser curvature of the stomach about 3 cm. from the pyloric ring. The suture line was reinforced by wrapping a portion of the greater omentum about it and a small cigarette drain was placed in Morrison's space.

Aside from nausea which lasted for six days the postoperative course was uneventful. The jaundice quickly decreased in intensity the bile tests approached normal and the stools became of a normal color.

The author believes that the underlying factor in this case was an infectious or toxic condition with degeneration of the hepatic parenchyma. He concludes that as a result of the destruction of the

liver cells the bile canaliculi became blocked with broken down cellular detritus and bile thrombi. The cytology of the liver cells continued with the formation of ocal dilations. Two factors were at play: (1) primary destruction due to a haematogenous process; (2) the mechanical factor with obstruction of the small bile canaliculi. The final result so far as the liver is concerned is an intense oedema of the entire organ. The condition can be described as a hydrophobia.

The purpose for which the choledochostomy was done to drain the bile of the oedema fluid and thereby relieve the passive congestion.

HARRIS W. F. M.D.

Judd E. S. and Counsell A. S. The Effect of Obstruction of the Common Duct of the Liver.

Stones in the common duct and benign traumatic stricture can in the long run lead to so-called chronic cholangitis, producing malnutrition, jaundice, and various degrees of biliary cirrhosis. The gall bladder is atrophied and the structure of the common duct is altered with marked hydropic changes and pathological changes with little or no biliary cirrhosis. The gall bladder usually markedly dilated.

Correlation of the anatomical and physiological changes in the common duct and the condition of the liver and the changes in the form of the biliary circulation in the portal circulation. The results of the experimental work are presented.

Boyden E. A. Concerning the Patent Duct of the Liver. Long Abstract of the G. I. Abstracts, 1931, 3.

The radical conception that have received considerable emphasis in recent years are that the gall bladder does not play a significant rôle in digestion and that it is a passive organ. The first of these views is no longer tenable and the second is fast being dispensed.

One of the arguments upon which the devaluing function of the gall bladder is based is that contraction of the organ has been observed during operation. This is due to the absence of a sustained stimulus for contraction at the time of operation. The stomach and duodenum usually being empty and to the inhibition of contraction by the mechanical manipulation of the duct to the operation and the deep anaesthesia. If the abdomen is opened under local anaesthesia, contraction of the gall bladder may be observed five minutes after the administration of magnesium sulphate.

The function of the gall bladder as a storage organ was denied on the basis of the foregoing. It was argued that the gall bladder is too small to hold all of the bile that is secreted in twenty-four hours. Recent investigations have shown, however, that no such demand is made upon the organ as much

of the bile secreted by the liver passes continuously for a time following a meal and at longer intervals during fasting.

In the last few years it has been shown that the gall bladder has great concentrating power and that frequently it discharges part of its contents during fasting and all or much of its contents after a meal.

Another argument advanced as indicating the relative unimportance of the gall bladder is that the organ may apparently be removed with impunity. Frequently, however, cholecystectomy results in well-recognized digestive disturbances and the first effect of the operation is dilatation of the intestine.

By the Graham method of cholecystography it is concluded that egg yolk and cream produce complete emptying of the human gall bladder. A study of the results in twenty-four healthy young men and women showed that the discharge of bile from the gall bladder is intermittent and that the first contraction phase is the most important. The final gall bladder is somewhat smaller than the normal empty state. After the ingestion of food the entire short latent period of contraction usually lasts two minutes. Since the presence of the bile in the duodenum is known to initiate the flow of the pancreatic juice, its discharge from the gall bladder at the beginning of a meal has a double significance.

To refute the theory that the decrease in the amount of bile in the gall bladder after a meal is due to the concentration of the bile in the viscous masses, it is pointed out to the speed with which the lumen of the human gall bladder may be reduced.

It has been repeatedly shown by several investigators that expulsion of bile from the gall bladder can be induced experimentally when all is accepted the action of the muscle tunic has been eliminated. The muscle tunic of the gall bladder exhibits all of the common physiological characteristics of smooth muscle, including the power of spontaneous rhythmic contraction. Expulsion of the contents of the gall bladder has been not only induced by drugs having an effect on smooth muscle, but also when the digestion of food. What was found that when all of the gall bladder is damaged by squeezing it with the clamp, the viscous fluid failed to empty, pointing to the importance of the tunic.

Byrd concludes that in the cat, dog, and pig, the normal bile is expelled primarily by the contraction of the muscle tunic of the gall bladder. He states that if the correct immediate problem of the future will be to determine the mechanism by which the gall bladder musculature is activated and how the flow of bile from the common duct is regulated.

In a supplementary note the author refers to the work of Ivy demonstrating that evacuation of the gall bladder by the dog may be caused by intestinal anastomosis of a highly perfused secret. This observation seems to prove that after the digestion

of food contraction of the gall bladder is sustained by a humoral mechanism originating in the mucosa of the small intestine

The article contains several cholecystograms photomicrographs and graphs and is supplemented by an extensive bibliography

J FRANK DOUGHTY M D

Dick B M and Wallace V C H Cholecystography Toxic Effects of the Dyes A Clinical and Experimental Study *Brit J Surg* 1928 xv 360

The object of this communication is to record certain toxic effects of sodium tetra iodophenolphthalein which have not been observed previously and to review experimental investigations of the drug To show the toxic effects three clinical cases are presented

The first case was one of acute hæmorrhagic pancreatitis which followed immediately after an intra venous injection of the drug The patient died at operation The dose given in this case 5 gm was in excess of that recommended by Grabam

In the second case the administration of the drug was followed by jaundice

In third case that of a young jaundiced patient death occurred within thirty hours after the oral administration of the sodium salt

In the authors experimental study which was carried out upon cats and rabbits the attempt was made to reproduce as far as possible the conditions obtaining in the human subject Particular attention was paid to (1) the action of the drug on the pancreas (2) the action of the drug upon the liver and the kidney in experimental common duct obstruction and (3) the mode and rate of excretion of the drug in conditions of biliary obstruction

In the absence of other contributory factors normal bile containing sodium tetra iodophenolphthalein introduced experimentally into the pancreatic ducts is sufficient to cause acute pancreatitis It therefore seems justifiable to assume that in cases of cholelithiasis with stones in the common bile duct in which conditions are favorable for the retrojection of bile into the pancreas the danger of acute pancreatitis will be much greater if the regurgitated bile contains the phenolphthalein salt

In obstructive jaundice the normal route of elimination of the drug is unavailable and small quantities are excreted in the pancreatic juice In animals with experimental biliary obstruction especially rabbits the pancreas showed pathological changes ranging from simple vascular congestion to hæmorrhagic pancreatitis This observation suggests that there is risk of damage to the pancreas in the administration of the agent to patients who are jaundiced and who have chronic obstructive lesions of the biliary passages

The toxic action of the drug on the liver is greater when biliary obstruction is present The kidney although it eliminates the drug is not affected The rate of excretion is rather slow

HERMAN H HUBER M D

Kirklin B R Caylor H D and Bollman J L The Concentration of Cholecystographic Media and Bilirubin by the Gall Bladder *Radiology* 19 17 463

Since the shadow obtained by cholecystography is the result of concentration of the opaque medium by the gall bladder a study was undertaken to determine whether any relation exists between the intensity of the shadow and the concentration of bilirubin

The material consisted of 113 cases representing a wide variety of gall bladder diseases In each instance the patient was examined by cholecystography prior to operation the gall bladder then being removed and examined microscopically and the bilirubin content determined

Contrary to expectations no constant relation seemed to exist between the intensity of the shadow of the gall bladder and the concentration of bilirubin In the group of cases with a bilirubin content of 10 mgm or less for each 100 c cm of bile no shadow of the gall bladder was seen in the roentgenograms In the intermediate group with a bilirubin concentration of 11 to 50 mgm the cholecystographic responses varied heterogeneously from a dense shadow to none at all Most surprising was the fact that in the group of cases with a pigment content of more than 50 mgm the gall bladder seldom produced a shadow

Wilkie A L The Bacteriology of Cholecystitis A Clinical and Experimental Study *Brit J S* 8 19 8 xv 430

In the vast majority of cases of chronic cholecystitis in the human subject the bile is sterile on culture

In the authors studies cultures of the whole thickness of the gall bladder wall most frequently showed no growth while cultures made from the submucous and outer coats the mucosa being left intact gave a growth of streptococci in 4 per cent of cases Bile inhibited the growth of the streptococcus

In cholecystitis the cystic gland yielded a growth of streptococcus in 86 per cent of cases *Bacillus coli* was recovered from the bile in only 6 per cent In the one case in which this organism was recovered from the cystic gland contamination by bile could not be excluded

The streptococcus of cholecystitis is a short chained type producing smooth non hæmolytic colonies on agar and growing readily on glucose broth Injections of saline suspension of this organism into the lumen of the gall bladder of the rabbit produced no change

Intramural injections of streptococci into the gall bladder of the rabbit produced a progressive chronic cholecystitis from which the organism was readily recoverable

When the cystic duct was ligated intramural injections produced a chronic empyema with marked intramural changes

GYNECOLOGY

UTERUS

Nikels F M. Electrodialtherapy—Its Use in the Treatment of Benign and Malignant Lesions of the Uterine Cervix. *California & West Med* 1928 LVIII 6

As the uterine cervix is the portal for the perpetuation and preservation of the species its treatment should be based upon the principles of conservatism. In the use of electrodialtherapy this premise is recognized.

The D Arsonval current a form of high frequency is most satisfactory. By means of it desiccation coagulation or carbonization of tissue may be obtained depending upon the extent of the lesion. The author reports gratifying results from diathermy in the treatment of endocervicitis mucous polyps and cervical erosions. The method may be used also for the eradication of deep and persistent gonococcal infection of the glands. In cervical malignancy the lesions should be thoroughly electrocoagulated and this treatment followed immediately by adequate radium irradiation and subsequently by deep X ray therapy. Focal infections of the cervix which may lead to complications after delivery can be destroyed by diathermy during pregnancy without interfering in any way with the process of gestation.

LICE I MAXWELL M D

Palmer A C. The Age Incidence of Carcinoma Corporis Uteri. *Proc Roy Soc Med Lond* 1928 VI 367

In the study here reported only primary cancer of the body of the uterus was considered. Chorion carcinoma and carcinoma which involved the cervix also were not included.

Of all cases of cancer of the uterus admitted to the hospital Palmer finds the corpus to be the site of the lesion in 26.65 per cent.

Of 250 cases of carcinoma of the body of the uterus the condition developed between the ages of fifty and sixty years in 52.4 per cent between the ages of sixty and seventy in 22.4 per cent between the ages of forty and fifty in 19.6 per cent between the ages of thirty and forty in 2 per cent and before the age of twenty in only 0.4 per cent. There were no patients between the ages of twenty and thirty years.

NATHAN N. CROWN M D

Fluhmann C F. Epidermidalization of the Cervix Uteri and Its Relation to Malignancy. *Am J Obst & G* 1928 XI 1

The author uses the term epidermidalization to designate the process by which the normal cylindrical epithelium of the cervix is replaced by

stratified squamous epithelium. This alteration has been attributed to (1) an ingrowth of basal cells from the adjacent normal squamous epithelium (2) the proliferation of basal cell rests beneath the cylindrical epithelium to replace the eroded or weakened columnar cells (3) the metaplasia of infra epithelial cells (4) the direct implantation of squamous epithelium and (5) undifferentiated embryonic cells which mature under pathological stimulation.

It occurred in 59 instances of chronic cervicitis found in a series of 1195 specimens of the cervix and in 29 of 100 cervical mucous polyps. It was noted also in cervixes of the newborn and in endometrium.

At times the process may lead to the formation of atypical epithelial growths which may be termed epidermoidalization. Careful study of serial sections and repeated biopsies may be necessary to differentiate these findings from early carcinoma. In rare instances malignancy can be excluded but certain features are present which may be considered precancerous. It is not certain that these represent transitions from a benign to a malignant growth and there is reason to believe that most of them would probably prove harmless.

ALICE F MAXWELL M D

Dustin A P. A New Contribution to the Radiobiological Study of Epitheliomata of the Uterine Cervix Subjected to Radium Therapy at a Distance (Telecurietherapy): the Curves of Pyknoes and of Normal and Atypical Mitoses (Nouvelle contribution à l'étude radiobiologique des épithéliomas du col utérin soumis à la télécurie thérapie les courbes de pyknoes de mitoses normales et de mitoses atypiques). *Ca et* 1927 IV 387

Dustin outlines briefly the problems of radiobiology calling attention to the fact that the whole question of the effect of irradiation on normal as well as tumor tissue is still in a somewhat chaotic state. The sensibility of cells in the process of karyokinesis is well known but the practical application of this knowledge is difficult. With regard to latency, cumulation and radio immunization a great deal still remains to be learned.

In co operation with several surgeons the author studied numerous sections taken from epitheliomata of the cervix undergoing irradiation. A series of six cases were thus studied. In one case the changes occurring during a recurrence and subsequent irradiation were also observed.

The treatment consisted in telecurietherapy (irradiation with radium at a distance). Four grams of radium element were placed at a distance of 1 cm from the skin and filtered through 1 mm of platinum

5 mm of aluminum and 4 cm of wood. From six to ten exposures were given daily for from nine to fifteen days. At each exposure 5 mc and on each day of the treatment from 150 to 250 mc were used.

A biopsy specimen was taken at the beginning of the treatment and at frequent intervals during the irradiation so that in each case from six to eleven specimens were examined. The tissue removed as fixed at once in a chromic acid fixative and stained with Heidenhain's iron-haematoxylin and Masson's trichrome. Determination was then made of the number of mitoses in the field, the number of pyknotic nuclei, the variations in the amount of connective tissue and the type of cellular infiltration. The article contains numerous graphic charts and photomicrographs showing the various phases of the reaction. Duration has summed up his observations as follows:

In the first tumors react similarly to irradiation but numerous variations are noted. Some of the neoplasms requiring a much greater dose than others to reach the am stage. The reaction has three phases. In the first phase the water is a more or less rapid diminution in the number of mitoses with an increase in the number of pyknotic nuclei. In three cases the drop occurred on the fifth, sixth, or seventh day of a dosage of from 375 to 500 mc in one case with a twenty-four hour after a dosage of 250 mc in a third case with a forty-eight hour after a dosage of 55 mc and in another case after three days following a dosage of 750 mc.

In the second phase there is a more or less rapid and sustained decrease in the number of atypical mitoses. This is usually beginning at a time between the third and fifth days of treatment and decreasing to maximum after from eight to ten days.

In the third phase the stage of histologic normal mitoses is entirely absent and the case is a rapid decline of the atypical mitoses. In one case the findings are noted on the second day but in the other not apparent until the eleventh day. During this stage many cellular mitoses appear.

In the case which is second irradiation as necessitated by recurrence, histologic remission before the second irradiation revealed that although despite the action the tissue showed the effects of irradiation on the cell on the surface quite undifferentiated and undegenerating mitoses. Mitoses were few times a abundant and atypical mitoses were ten times a abundant before a second treatment. During the second exposure to diminish the tumor reacted to the time of the first exposure though not so markedly. Although the atypical mitoses were reduced in number there were several recurrences during the treatment.

Dustin vividly describes the work of Lacasagne and Monod Schwartz Albritton and Polzer Clunet and Domini and describes that the results of demonstration of the reactions were the essential factors in the cell to irradiation and the appearance of

degenerate atypical mitosis. He believes that these are the first tissue studies made during telecurtherapy. He discusses the efficacy of this method of treatment and describes an accurate method of measuring the results.

The disappearance of normal mitosis and the pyknotic degeneration of nuclei in the process of division appear to be constant with certain facts regardless of the amount of irradiation. The duration of the changes and the rapidity of return to the previous condition depend upon the nature of the tumor and the intensity of the treatment. The appearance of degenerative atypical mitoses cannot be prevented even by large doses and continued treatment. It seems to be due to intoxication of the cells in the process of division.

The chromatin affected by irradiation is unable to give rise to normal mitoses but this effect is not maintained. After a while the cell reacquires a normal or even more than normal power of division unless they are killed by the treatment or have been so long incapacitated that the normal defenses of the body are able to destroy them. In judging the proliferative activity of a neoplasm during irradiation it is necessary to take into account not only the normal but also the atypical mitoses. The atypical mitoses are already degenerated and are not an index of the karyokinetic rhythm of the tumor.

The study of the case of recurrence showed that insufficient irradiation is dangerous as it is followed by an intense karyokinetic reaction on the part of the tumor cell. It demonstrated also that a recurrence is a basis to treatment by radium irradiation in the same way as the original tumor.

MICHAEL L. MASO, M.D.

Polak, J. O. The Present Status of the Therapy of Cancer of the Uterus. *J. Obst. & Gynec.* 9:8, 6.

In cancer of the cervix surgical extirpation is indicated only when the growth is wholly within the confines of the cervix and the cervix is freely movable. All borderline and advanced cases fall within the range of radium. Radium destroys the cancer cell as completely as any surgical procedure. Notlung suggests cancer so quickly as man palpation especially such occurs when an incomplete extirpation done through malignant structures.

In cancer of the body of the uterus, pelvic exenteration followed by total hysterectomy with postoperative radiation is the accepted procedure. Polak favors preoperative radiation from four to six weeks prior to the operation.

Dignosis of metastasis is dangerous because of the penetration of the lymphatics. It should therefore be preceded by a hypodermic injection of pituitary extract to contract the uterus and the contraction should maintain it by the use of additional pituitary. Radium should then be introduced immediately into the body of the uterus to the lymphatics.

NATHAN C. CROWN, M.D.

Petit R. Vaginal Hysterectomy Technique and Indications 123 Consecutive Cases without Complications (L'hystérectomie vaginale technique et indications 123 cas consécutifs sans accidents) *Bull. et mém. Soc. d. chirurgiens de Paris* 1927 xiv 516 537

Vaginal hysterectomy has of late years been supplanted by abdominal hysterectomy, but when it is performed by a standard technique it is an excellent procedure and possesses certain advantages over the abdominal operation.

In the author's technique for vaginal hysterectomy the vagina is disinfected by douches of 1/2 per cent tochlorine or 1:1000 oxycyanide of mercury for several days before the operation and a purgative is given three days before the operation.

On the operating table the patient is placed in the lithotomy position, the field painted with iodine, the cervix pulled down and the cervical canal sterilized with the thermocautery.

A curved incision passing through the mucosa is then made on the posterior and anterior walls of the cervix. The two incisions come together at the sides of the cervix and are prolonged upward into the fornices. The scissors are then introduced into the posterior incision close to the uterus and the tissues pushed back until the plane of cleavage between the peritoneum and uterus is found. The space of Douglas is opened with the scissors or the finger. A long retractor is placed in the cul de sac and a gauze pack is inserted so as to hold the viscera back. In a similar manner the uterus is separated anteriorly and a retractor is introduced to hold the bladder forward.

The cervix is then pulled laterally and the tissues in the base of the broad ligament are dissected with a compress covered finger. The uterine artery which is thereby exposed is ligated. After a similar procedure on the right side the uterus is brought down into the field.

If the uterus is small the fundus may be brought out through the vagina anteriorly but if the uterus is large it is carefully divided along the median line, the edges of the incision being progressively grasped with forceps and gentle traction being maintained until the organ is delivered. If a large fibroid is encountered it is removed.

The adnexa on the most accessible side are then drawn downward and a ligature is carried around the ovarian ligament by means of a ligature carrying forceps introduced through the broad ligament below the tube. The round ligament is ligated and cut. The broad ligament is then separated with the gauze-covered finger from above downward, ligatures being applied wherever necessary.

After both sides have been thus treated the uterus and tubes are free. If there are adhesions which interfere with the removal of the tubes they are ligated and removed later. After a careful examination of the area for bleeding the gauze holding back the intestines is withdrawn and the field is washed with ether or warm horse serum.

The peritoneum is then brought into the field of operation by gentle traction on the ligatures in the broad ligament which were left long. The anterior and posterior sheets of the peritoneum are closed, the ligatures being kept extraperitoneal. The round ligaments and the broad ligaments are then sutured in the median line, a good floor being thereby formed to guard against secondary prolapse. Closure should not be done if a pus tube is found. In the presence of a pyosalpinx closure is contra-indicated and the cul de sac should be drained.

When the peritoneum is closed gauze packs soaked in horse serum are placed at the base of each broad ligament posteriorly against the rectum and anteriorly against the bladder. Between these four packs a drain is placed. A retention catheter is introduced into the bladder and dressings are applied.

The packs are removed after from forty-eight to seventy-two hours. The drain is expelled spontaneously. After the fourth day the catheter is removed and two daily injections of normal salt solution are given into the vagina. The patient is out of bed on the seventh day. The treatment is completed by several injections of a 1:1000 silver nitrate solution. If exuberant granulations are present they are touched up with lunar caustic.

The author does not claim that the operation described is entirely original. He states that he made use of many other techniques adding here and there an original modification. He stresses particularly the extraperitoneal placing of the sutures in the broad ligament.

The advantages of the technique described are that hemostasis is perfect, necrosis is practically done away with, there are no clamps, no forceps are left projecting from the vagina, the intestines, ureters and omentum are always isolated and out of the way, the peritoneum is closed and the ligatures in the broad ligament lie below it, adhesions do not occur, the postoperative course is smooth and painless, the exposure is excellent, the ovaries may be preserved, adhesions may be dealt with shock is minimal, there is no external scar and no danger of eventration, and the operation is shorter than the abdominal hysterectomy.

In the 123 cases in which this operation was performed there were no postoperative deaths. Most of the patients were up on the seventh day. One patient developed a bilateral phlebitis but was out of bed at the end of a month. Except for cases of malignancy a cure was obtained in every instance. There were seventy-five cases of fibroma, seventeen of fibroma with non-suppurative disease of the adnexa, eleven of fibroma with suppurative disease of the adnexa, four of prolapse, eight of carcinoma of the cervix and eight of carcinoma of the fundus.

The author regards vaginal hysterectomy as the operation of choice for old women, women whose resistance is low, those exhausted by hemorrhage, and those with disease of the adnexa. It is of value also for the removal of fibromata which are situated at the base of the uterus and are not too large and

period in its cycle the degenerated corpus luteum is inactive. Cases of habitual abortion have been very successfully treated with corpus luteum extracts.

The interstitial hormone causes a secretion of the posterior lobe of the pituitary gland which renders the uterus supersensitive and highly responsive to other forms of stimulation. That the pituitary gland has a relation to pregnancy is shown by its greater weight in women who have borne children as compared with nulliparae. The interstitial hormone is liberated during only one stage of the ovarian cycle—that of degeneration of the corpora lutea. Therefore it is present in the ovary just previous to parturition and just before the heat periods. Mayer states that during labor the cerebrospinal fluid contains the active principle of the pituitary responsible for the production of uterine contractions.

During the periods of heat and during pregnancy the corpus luteum so dominates ovarian metabolism that the ovarian secretion which at other times activates the pituitary is inhibited or neutralized by the secretion coming from the corpus luteum. At the termination of pregnancy the normal secretory activity is again produced and the pituitary gland is stimulated to secrete in greater quantity, thus explaining the increased irritability of the uterus and the occurrence of labor.

MICHAEL P. URNES, M.D.

Hunt, V. C. and Simon, H. E. Carcinoma of the Ovary in Infancy. *Ann. Surg.* 1918, 68: 84.

The case of a girl seventeen months of age is reported. One month previous to the patient's admission to the hospital a blood-tinged vaginal discharge was noted. This lasted only a few days. Two weeks later a mass was found in the lower part of the abdomen.

Except in size the child's development corresponded to that of puberty. The breasts and external genitalia were well developed and there was a firm growth of hair in the axilla and on the labia. A slight blood-tinged vaginal discharge was present. A large, smooth, freely movable mass occupied the lower part of the abdomen. At operation the tumor was found to have its origin in the right ovary. There was no evidence of metastasis and the uterus and opposite ovary appeared normal. Following its removal the tumor was found to weigh 1,000 gm. and to measure 11 by 15 cm. It was diagnosed as a carcinoma of the ovary.

The special symptoms associated with ovarian carcinoma and with other type of ovarian tumor in children are those of puberty precocia. This is true homosexual precocia: the breasts and external genitalia develop and changes in fat distribution occur over the body in a manner similar to that which is normal at puberty. Simple cyst, dermoid, cystic teratoma, sarcoma, and carcinoma of the ovary have been observed in association with puberty precocia and there are no characteristic clinical data upon

which a differential diagnosis can be based. The evidence at present is not sufficient to justify the removal of an apparently normal ovary from a child if the other ovary contains a malignant tumor. Neither is it sufficient to warrant an opinion as to the ultimate prognosis.

MISCELLANEOUS

Meaker, S. R. A Working Classification of the Causes of Sterility. *J. Am. M. A. S.* 1918, 70: 111.

Since there are six major requisites of fertility the causes of sterility fall naturally into six main groups. The latter are shown by the author in a chart.

Many uterine abnormalities not in themselves causes of sterility are associated with conditions in other parts of the genital tract which render conception impossible. For example, pregnancy fails to occur in the infantile uterus not because it is an infantile uterus but because the infantile ovaries do not ovulate.

Failure of the semen to be delivered directly into the cervical canal usually results in failure of pregnancy.

All grades and degrees of fertility are known. Chief among the conditions leading to the formation of relatively infertile ova or spermatozoa are gonadal underdevelopment, depressed constitutional states and endocrine failure.

Gross underdevelopment is common in the generative organs of the female but not in those of the male. Many women show juvenilism.

Most frequent among the depressed constitutional states are the defects of metabolism due to extrinsic causes such as faulty diet and lack of exercise.

In sterile women the primary focus of endocrine failure is located more often in the pituitary and thyroid glands than in the ovary.

Successful treatment of sterility must be preceded by a thorough and systematic investigation in which every possibility is taken into consideration. The acceptance of the first discovered abnormality as the cause of the condition has led to many therapeutic blunders. T. LLOYD BELL, M.D.

Robins, S. A. Cystography as an Aid to the Diagnosis of Pelvic Lesions in the Female. *Am. J. Roentg.* 1927, 13: 546.

Various abnormal densities in the soft tissues of the pelvis frequently noted in roentgenograms prompted the author to make a study of the female pelvis utilizing the cystographic method as a diagnostic aid. Over 300 cystograms of patients with various pelvic disorders were made. The following conditions produced characteristic changes in the bladder outline: (1) uterine fibroids, (2) displacement of a large and atonic uterus, (3) cysts, (4) tumors of the broad ligaments, (5) adhesions, (6) malignancy of the uterus, tubes or ovaries, (7) hydrosalpinx, (8) pelvic abscess, (9) pregnancy, and (10) ascite.

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

Kadjar M K. The Study of the Placental Circulation in Multiple Pregnancies by the Stereoroentgenographic Method (Contribution à l'étude de la circulation placentaire dans la grossesse multiple par la méthode stéradiographique) *Gynecolog* 927 xxi 449

The author states that the radiostereoscopic method is indispensable in the study of the placental circulation as it permits the certain recognition of the deep anastomoses. By the use of this method anastomoses may perhaps be found quite often in bivittellin pregnancies. ALBERT F. DEGROAT M.D.

Walker A. A Case of Rupture of the Uterus After a Previous Cesarean Section. *Proc Roy Soc Med Lond* 19 8 xvi 365

The author reports a case of uterine rupture at approximately the thirty-ninth week of pregnancy eighteen months after a cesarean section. The sequence of events which led up to the rupture were apparently as follows:

1. A portion of the scar of the original cesarean section healed with intervention of fibrous tissue.
 2. When the uterus hypertrophied during the second pregnancy the scar tissue was stretched until it became thin.
 3. When labor began this thin area was pulled upon by the contracting uterine muscle in all directions until it gave way slowly at the center.
- ALBERT W. HOLMAN M.D.

Dougal D. The Clinical Features of Ectopic Pregnancy. *Brit M J* 927 ii 1074

Dougal reviews the clinical features of ectopic pregnancy in the 100 cases. The chief predisposing cause of the condition is a pelvic infection which obstructs or delays the passage of the fertilized ovum to the uterine cavity. Other factors of importance are developmental abnormalities. One third of the patients whose cases are reviewed had not had a previous uterine pregnancy.

The combination of the cardinal symptoms of amenorrhoea, irregular uterine haemorrhage, and abdominal pain was found in 6 of 10 cases. In the acute cases a rather constant symptom is shoulder pain due to haemorrhage into the peritoneal cavity. The abdominal pain varies from a colicky pain associated with the unruptured tube to an acute lancinating pain occurring at the time of tubal rupture.

If the physical signs are not conclusive examination under nitrous oxide anaesthesia should be considered. The condition must be differentiated from appendicitis, threatened uterine abortion, inflam-

matory tubal swellings, and small ovarian and broad ligament cysts.

Immediate laparotomy is advocated except in cases of profound shock. The gravid tube should be removed but not the other tube.

Because of early diagnosis and operative intervention there were no deaths in the 100 cases reviewed. MAGNUS P. URNIS M.D.

Lacouture J. and Massé I. A Child Two and a Half Years Old Born of an Ectopic Pregnancy (Fr. sensation d'un ectopie âgé de 2 ans 1/2). *Bull Soc d'obst et gynec de P r* 92 x 666

Not many children born of ectopic pregnancies survive. Of 303 such children whose cases were reviewed by Baronnet 58 per cent died within the first twenty-four hours after birth, only 13 per cent lived to be more than five years of age, and one third were malformed.

The child discussed by the authors, a girl weighed 450 gm at birth. Her only malformation was a considerable asymmetry of the face. She is at present normal in height, weight, and mentality, and there has been no retardation of dentition or walking.

Harris is quoted as stating that if a child born of an ectopic pregnancy lives as long as a month, it will probably continue to survive.

AUDREY C. MORGAN M.D.

Walker A. Diabetes Mellitus and Pregnancy. *Proc Roy Soc M d Lond* 1928 xvi 377

Walker states that while diabetes must be regarded as a serious complication of pregnancy, there seems to be no reason for terminating the pregnancy or for the belief that the child will not be born alive if the patient is treated with insulin and properly dieted. Puerperal complications occur no more frequently, and the pregnancy does not appear to have any ill effects upon the diabetes. In one of the author's cases insulin treatment was apparently the means of curing sterility.

ALBERT W. HOLMAN M.D.

LABOR AND ITS COMPLICATIONS

Bailey H. and Williamson H. C. Trial Labor as a Procedure in the Treatment of Patients with Contracted Pelves. *J Am M Ass* 19 7 lxxxix 203

Maxwell A. F. A Study of Labor in Contracted Pelves. *J Am M Ass* 19 7 lxxxix 2038

BAILEY and WILLIAMSON report that in 11491 deliveries in the Cornell teaching service at Bellevue Hospital and the Berwind Clinic during the last five years pelvic contraction was found in 676 cases (5.9 per cent). With the exception of 5 cases of

TABLE I—TYPES OF PELVIC CONTRACTION

| | | | | | | | | | | | |
|---|---|---|---|---|---|----|---|---|----|---|---|
| B | A | H | C | M | t | I | F | M | F | I | I |
| | | | | M | J | | | | | | |
| | | | 7 | | 9 | | 5 | | | 3 | |
| | | | | 4 | | | 8 | | | 6 | |
| | | | | 1 | | | 6 | | | | |
| F | (| | 5 | 3 | | 86 | 3 | | | 3 | |
| | | | | 8 | | 5 | | | 5 | | |
| | | | | 8 | | 5 | | | 87 | 3 | |
| | | | | 8 | | 5 | | | 87 | 3 | |

TABLE II—TYPE OF DELIVERY

[illegible]

TABLE III—STILLBIRTHS AND NEONATAL DEATHS

H ed I t F l lrr mla
 h h N I S p N h l l pel l S l l l
 b h d h b h d h b h d h b h d h b

x

TABLE IV—METHOD OF DELIVERY IN 241 CASES OF CONTRACTED PELVIS

| G | H | F | pel | F | 1pel | R | h | pel | A ₀ |
|---|---|---|-----|---|------|---|---|-----|----------------|
| 5 | 9 | 5 | 9 | 7 | | | 5 | 5 | 5 |
| | | 5 | | | 3 | | 5 | 5 | 60 |

absol te cont a t i a d 4 in v h a el t e
cesar a sect n i ne the om n e given a
t all b i o d i r c e t i h e v p n t a o
Nine l i t t s per n f t h o p e a t i d
l verie r q e d t s an ct In the n t i e
serie the e re o l y 3 de th T of the l a t h s
occur el n t h p a t i e g u n

The uth r c el t h t t lv able to g c
ll patie t th elat ly ont cted pel a tial
l bor n ler the c dit th utl n If no n
g me t f th he d occur fte t t e hour of
h d cont ct the p t ent ho l l be an ler e
to hosp tal d lo ce cal ce n s etion
perf med In e f elatu ely contracted p l i
po t neou l l e v can le accomplished a
l bor that l ng than orm l

In the 66 cases recorded in the laboratory, the incidence of cutaneous infection to 4 per cent. There

There were no deaths from the procedure. The maternal mortality in the entire series of cases was 0.44 per cent, the gross fetal mortality 6.2 per cent and the net fetal mortality 4.4 per cent.

The type fecal excretion and delivery and the tillbirth and neonatal death are shown in Table I, II and III.

MAXWELL has made a analysis of the effect of physical contractions on the outcome of labor in 6500 cases of delivery in the Obstetrical Department of the University of California Hospital.

On the other hand, the California Hospital Survey reported that the incidence of congenital heart disease in the clinical setting is only 3.9 percent of cases but when the incidence increases the hazard of perinatal loss is increased. The gestation of the baby at term (average 34.78 gm) is the cephalopelvic proportion. The author suggests that one of the reasons for a small pelvis is a potential candidate for

TABLE V—RELATION BETWEEN THE TYPE OF DELIVERY AND THE MORTALITY

| Del y | C | M t l F t l
m r t y m r t y |
|-------------|-----------|--------------------------------|
| Spo t | 109 | 7 |
| M d l | 47 | 5 |
| H gh t | 3 | 3 |
| Ces eel | 5 | 46 |
| P b t my | 5 | 66 |
| T t l m a l | 1 m l l y | e r t l m t l y g g |

operative delivery. Therefore every patient should be given detailed instructions as to the proper hygiene of the birth canal in the last month of pregnancy.

Maxwell emphasizes the importance of realizing that test by labor has vaguely defined time limits. The true test begins only when the cervix is completely dilated. This test is a test of accomplishment and should not be prolonged beyond the limits of the patient's endurance. Cervical rigidity, weak, infrequent uterine contractions, and occiput posterior presentations prolong labor, weaken the woman's power of resistance, and cause exhaustion before the value of the trial by labor can be determined. A tremendous fetal and a considerable maternal mortality will result from the use of high forceps. This procedure should therefore be discarded. However, because the author's review extends back for more than ten years, this was in many instances the only method possible when maternal exhaustion compelled delivery.

More recently the advantages of low cervical section in the cases of potentially infected women have been emphasized and experience in a few cases justifies its adoption. The present policy in the management of contracted pelvis in the University of California Medical School is conservative. The patient is allowed to go into natural labor, the progress of labor is determined by rectal examinations only, and in the event of unsatisfactory progress the child is delivered by a low cervical section.

The method of delivery in 41 cases of contracted pelvis is given in Table IV, and the relation of the type of delivery to the mortality is shown in Table V.

ROLAND S. CROH, M.D.

Huntington J. I., Irving F. C., and Kellogg F. S.
Abdominal Reposition in Acute Inversion of the Puerperal Uterus. *J. Obst. & Gynec.* 9: 8, 34.

This article reports five cases of inversion of the uterus occurring immediately after delivery. All were treated by abdominal operation. Recovery resulted in every instance.

In the technique used by the authors, the abdomen is opened by a low median incision. If there is complete inversion, the uterus is absent from the pelvis; in which there is a crater in the region of the cervix into which the tubes, round ligaments, and occasionally one or both ovaries have been drawn. The

operator and his assistant are both armed with two Allis forceps. Each inserts one of his forceps into the crater for about an inch and grasps the surface of the uterus on his side. Both draw upward simultaneously, pulling a portion of the uterus out of the ring and restoring it to the peritoneal cavity. Steadying the uterus by the forceps already applied, the operators then insert their second forceps into the crater for about the same distance as before and again grasp the sides of the uterus and pull upward. Thus by successive bites and upward traction, the uterus is gradually restored to its normal position.

ALBERT M. VOLLMER, M.D.

Grimault L. Low Caesarean Section by the Extra-peritoneal Route Following Rupture of the Membranes with Infection (*C. C. arienae basse* ou *ert et infecté temp seque extra-péritoneal*). *Bull. Soc. d'obst. et de gynéc. de Paris* 1927, 1: 494.

The author reports three cases in which he performed a low caesarean section following rupture of the membranes with infection. In his technique for infected cases the peritoneal cul-de-sac is separated from the bladder by a horizontal incision in the cellular tissue which unites them. The peritoneal cul-de-sac is then slit vertically so as to give free access to the lower segment of the uterus and the parietal and visceral folds are sutured together so that instead of one horizontal cul-de-sac there are two vertical cul-de-sacs and the peritoneum is closed before the uterus is opened. For clean cases, Grimault prefers the classical caesarean section.

AUDREY G. MORGAN, M.D.

NEWBORN

Crowther W. L. Haemorrhage of the Newborn.
Med. J. Australia 19: 7, 11, 873.

Haemorrhage of the newborn may be due to trauma from instrumental delivery or the natural forces of labor, pathological conditions such as congenital syphilis, duodenal or gastric ulcer, or sepsis, neonatorum, or the haemorrhagic diathesis (idiopathic haemorrhage).

The groups of cases can be differentiated by noting the bleeding and coagulation times. If both are normal, the haemorrhagic diathesis is excluded. The bleeding time as determined by the puncture method of Rodda should range from two to five minutes. In idiopathic haemorrhage, the oozing may continue for hours or even days. The coagulation time is normally from five to ten minutes. In idiopathic haemorrhage, it ranges from thirty to ninety minutes. The haemorrhagic diathesis of the newborn is due to some grave alteration of the blood formula which changes the blood coagulation. Proof of this lies in the fact that the subcutaneous introduction of from 5 to 10 c.c. of whole adult blood will control the haemorrhage and cause a coincident return to normal of the bleeding and coagulation time.

ALICE I. MAXWELL, M.D.

Sci weize F Complete Obstetric I Paralysis of
the R gl t Brachial Ilexus and the Right I l
ic Nerve in n Infant Two and One Half
M nths Old (Pa ál s b tét mpt l pl v l
b q l d h yp ál d l f d ch
l t t d me l d d) Sc mtd
97 98

Th autho pos ts th ca of an i fant t o and
one half m nth ol l sh as suff r ng f om com
pl te brachial par l sis on th r ght sid and con
st nt dysp oea th p l p n r Th dyspnoea and
poly p n a not v marked be the chl l
was quiet b t hen t r l r mad a y m ve
ment th re p r t r ch d 7 pe m nute a l
th r a transit r van sis

Electrical xam nat n showed th eact n of
d ene ation in all of th mus cl of th ght arm
On r ngen x minati n th r ght ap x a l i r t
th r i tal p r e r fo nd t bc clea
but the rest of th tho a n that d ho d n op ity
due to th l v h h as d spl c l up ar l On
th left l th ap nd f i t w or th r i t
tal pa s l e r but b low th r v a
opa city d e to th h art an i med i t n um h h
r dev at d to the left The th ch e f r entgen
sig s v r e n th arch f the p r alv d l a
ph agm d i p f a e ment of the med a t n m to ar f
the n mal s de and oblite at on of the ph cn o tal
n on the r ght d e

The pa l y of the d a ph r a g m wa du to p r
alv s of th ph r e e v on the r ght s l While
obstetrical p a l y of the b a h a l p f e u i not
unus l the author beli es th s th frst co l d
ase of b h l p l x u p a l y c m b n e d i th
p r m nent pa l y f th ph r r
A R (M) M D

MISCELLANEOUS

B ker S J Tl Mat nal Mo tal y n t l United
St tes / l M l > l 6

The m tern l mo tal y r t e l the U t e d St at
is e th l h g h e th n the mat e nal m tal y
ate in Eng l a d W l e nd mo e th n t i c e
h g h as that of De ma k It l Jap the Neth
l d Ne Zeal nd and S e f e I 1915 t as
61 and n 925 64 pe r o l i e b i t h s

Forty per cent of th mat e rial de aths are due to
puerpe al infection 7 p cent to pu pe al
albuminu a a d n l i o n 3 pe cent to the
accidents of p e g n c y c f d n g a b t i o n e c t o p c
pregnancy puerpe l h a m o h a g e m b o l i m p u e
p e r i f p h l e g m a a l b r t o l e s and c e t r i n i l
d e f i n e d c u e s and o p e r c e n t o i s t r u m t l
d l v e r e s d s g i c l p c e d u r e s s u c h s c a r a
s e t i o n

A compa on f th numbe of b i t h s n the
case of wom n c e d f r b y p h y i c n and m i l
v i e s with the tot l m t e r a l d a t h in the a m e
g e o g a p h c a l a c h o e l t h t t h e m i d i f i not a
dominant fact i the p e n t b g h mat e rial
mortality rate

To reduce the mat e rial mortality rate the
author proposes more hospitalization of confine
ment cases in order to eliminate puerperal septi
c a m i a and assure safety in operative procedures
b e t t e r t r a i n i n g of medical students in the science of
ob t e t r i c the e p o r t i n g of all c a s e s of puerper l
i t i c a m i a and e t e n s o n of facilities for pre at l
care and l s u p e r v i s o n A R A N I A B A U C M D

MacMurchy H Mat e rial Mo tal y in Canada
C d M l s f 97 v 434

With the co p e t i o n of the members of the
m e d i c a l p o l e s i o n th p r o v i n c i a l a u t h o r i t i e s and
the Dom n i o B u r e a u of S t a t i s t i c s the M i n i s t e r of
H a i t h of Canada m a l e an i n q u i r y i n t o the mat e
r i a l m o r t l i t y n Canada in the p e r i o d f o m Dom n i o n
D a y 925 to Dom n i o n D a y 1926 As the result
of th s i e s t g a t i n there are now on file 11 000
s i f f i c a l r e t u r n — e c o r d of the d a t h s of all women
bet v e f i f t e e n and f i f t y y e a s of age v h o d i e d in
that y e a t o g e t h e r with the name and address of
the p h y c i a n or other p e r o n g n i n g the de a t h c e
t i f i c a t e I t w a s f o u n d t h a t in the f i f t y n t h
y e r of the C o n f e r a t i o n the v e r e 153 mat e r i a l
de a t h s a p p r o x i m a t e l y 6 p e r 1 000 l i n g b t h s

The h t e s of the 53 m o t h e r s h o d e l
h e i t h a t the health of 72 f t h e m a o t g o o d
The following c o n d i t i o n s w e r e e c o l d

| | |
|---|-----|
| G e n e r a l h e a l t h p o o r h a l | 153 |
| C a r d i a c i s e r | 26 |
| I n f l u e n c i a l p n e u m o n a | 13 |
| I u e r u l o | 96 |
| E h a u t e d f r o m c a e of h m e d c h i l d r e n | 61 |
| E h a u t e d f r o m w t f s l e e p d r e s t | 2 |
| E x h a u s t e d f r m t f r e q u e n t p r e g n a n c e (s u c h
a s c h i l d r e i n 6 y e) | 26 |
| F o t l | 27 |

The cause of de t h a s g e n e r a l l y b e e n
n o o a e s (1 p e r c e n t) p s i n 4 b (7 p e r
c e n t) h e m r r h g e i n 357 (3 p e r c e n t) to a m a s
of p e r c e n t 341 (p e r c e n t) a n l o n g a n d h r d
l a b r i 87 (5 p e r c e n t) N e r l y a l l of the d e t h
f t o t h e c a u s e s c o u l d h a v e b e n p r e v e n t e d
b p r o p e r p r e n t a l c a r e P r i n c i p a l l y v o m i t i n g
a t h c a u s e f d a t h n 47 c a s e s p h l e b i t i n 22
c a s e s n e p h i t i n 80 c a s e s a d e c l a m p s i a i n 195
c r e l e r i o u s v o m i t i n g and e c l a m p s a e r e
r e s p o n s i b l e f r 42 de a t h s (6 p e r c e n t of the total
num b e r) F i g h t y s e v e de a t h s e e d u e t o e m b o l i s m
n d 63 to s h o k E c t o p c p r e g a c y o c u r r e l i n 33
c a s e

O f the total numbe of women 349 e r e p m
p a e r d 963 w e r e m u l t i p a e F o c e p s e r e u e d n
89 c e s (9 p e r c e n t) F i f t y s i r e p o r t s c e t e d
h u y the part of the p h y c i a n a s the r a s o f
t h e u e f f o c e p s o t h e r s t a t e d t h t h s t r u m t s
w e r e e m p l o y e d i n a c c o d a n c e i t h the i s h of th
p t i e t o b f i e d s P l u t r i n v a s u e l i 327
c r e s (21 p e r c e n t) 13 of the e u p t u r e of the u t e r s
o c u r r e d

No doctor was in attendance in 237 cases (15 per cent). This number includes 48 (3 per cent of the total number) in which a midwife was in attendance. In nearly every instance the midwife was untrained and in some of the cases she was directly responsible for the death.

Only 230 of the 1 532 patients had prenatal care. In 128 cases the doctor was not called until labor had begun.

In 1924 the total number of births in Canada was over 244 000 and 38 634 (16 per cent) occurred in hospitals.

ROLAND S. CROW, M.D.

MacDowell E. C. and Lord E. M. *Reproduction in Alcoholic Mice I. Treated Females. A Study of the Influence of Alcohol on Ovarian Activity, Prenatal Mortality, and Sex Ratio* (Fortpflanzung alkoholischer Mäuse. I. Behandlung weiblicher Mäuse. Eine Studie über den Einfluss des Alkohols auf die Fruchtbarkeit des Eierstocks, die Sterblichkeit vor der Geburt und das Verhalten bei der Geschlechtsbestimmung). *Arch. f. Entw. u. Vererb.* 1927, 11: 549.

Attempts to solve the alcohol problem by experimentation suffer most in the authors' opinion from the subjective prejudices of investigators. Of the enormous literature on the subject only a little is really of value when complicated questions of reproduction, development and race come under consideration. In experiments on animals it is forgotten that the organism on which the experiments are performed is as complicated as alcohol is chemically simple. The chief difficulty in experimentation is the elimination of the variations due to this fact. The influence of alcohol on the animal is still a problem in itself and as animals react very differently to alcohol no conclusions applicable to man can be drawn from them.

Before the influence of alcohol on offspring is considered it is necessary to determine whether the decrease in offspring claimed by many investigators to result from alcoholism rests on prenatal death, disturbances of ovulation or a reduced liability to conception.

The investigations reported in this article were limited strictly to the mating of alcoholized female mice with sound male mice. The strains of mice used had been bred in the laboratory for a long period of time and their origin and blood relationship were known. In the case of each female the date of opening of the vagina and the duration of rut were recorded. In each gravid animal the exact number of ovulation and littering periods was determined by examining the ovary exteriorized through a dorsal incision under ether narcosis between the twelfth and twentieth days of gravidity. Under a binocular microscope the corpora lutea graviditatis which may be easily distinguished from old corpora lutea were counted and the number of dead fetuses was calculated from the difference between the number of the former and the number of living offspring.

The sex of the newborn was learned from a red fleck between the anus and the genital papilla in the

female and the projecting scrotal ridge in front of the anus in the male.

The alcohol was administered in the form of vapor from alcohol saturated blotting paper that was placed with the mouse under a bell jar for various lengths of time—up to forty five minutes for slight intoxication and five times a week until there was loss of consciousness for severe intoxication.

In one group of animals in each series of experiments the alcoholization was stopped during the last week of pregnancy and in another it was continued to delivery.

Comparison of the mice treated with small doses of alcohol vapor (forty five minutes daily, beginning at the age of four weeks) with untreated sisters of the same litter led to the following observations:

1. The time between the mating and the birth of the offspring showed a tendency to increase.

2. Whether the opening of the vaginal orifice and the first estrus were delayed was questionable.

3. The duration of the estrus cycle, the number of corpora lutea, the size of the litter (male untreated) and the mortality before and during the birth showed no change.

In certain cases in which the estrus cycles had been determined before the treatment was begun the alcohol nearly doubled the length of the cycle. This effect was more frequent when large doses of alcohol vapor were given.

When female mice treated with doses of alcohol vapor sufficient to cause complete insensibility (five times a week, beginning at the age of four weeks) and mated with normal males were compared with untreated sisters of the same litter mated with the same normal males it was noted that:

1. The treatment showed a tendency to delay the birth of the first litter and to increase the intervals between the births that followed when all of the young were killed at birth and the mother was at once mated again.

The number of corpora lutea per pregnancy was a little larger whether or not the treatment was stopped during the last week of pregnancy.

3. The size of the litter was reduced by about five tenths of a mouse when the treatment was stopped before the last week of pregnancy (Series A) and by seven tenths of a mouse when the treatment was continued to delivery (Series B).

4. Pregnancy in which no young were carried to term was somewhat more frequent.

5. The number of stillborn young was greater by about 4.5 per cent in Series A and by 9.4 per cent in Series B. The number of stillborn female was somewhat greater than that of stillborn males in both the treated and the control group.

6. The mortality before birth was raised by about one or two embryos per litter.

7. The ratio of the sexes showed no alteration. The percentage of males in 2 857 mice was 51.2.

8. The incidence of abnormalities in the young showed no change. The report is supplemented by numerous curves and tables.

FLESCU (C)

GENITO URINARY SURGERY

ADRENAL KIDNEY AND URETER

Cle H H Obse tion on Inject ns of tl
Ren l Pel s wth Sp cial Ref nce to th
Q ion of Py lo e us B k Flo J L I
9 6

The auth r rep t that i ost n p m ns
f th nal j lvi f m ada er sp ci s
v n s out branl ng btained c pt her
app t xtra att hal e ur d

Th lt of lve in j ct s sm hr t tbo
of Hunman Tho no s vst m a n j t d r gu
larly lut th t bul s c n e in j ct d mor than
ps tally nd th lv r ly Ob vati f
paq c sol ton inie t du d r ray co to l e n
firmed th c mal bv Hnma N n f th f l
i g s l r dem n t at d ho th ul t s
rea h the bl od str am fr m th p l i v mally
th r n in tr p l i c p u W th th ur e
of p it pr u th may b m o p
r ptur hlt att o m o s i c r a l p m ab l ty
f th p l y membr n l ph t ab o p t n r
the j ng up l a d r t o m m u n i t n l a d v
pr s t n th a gle of the m i o l y c as

i e d b H m a n j l c Br n
Th i o d o b t th t bul s m v l p
ually j j t l but th l o e f th l y i th
bloo iessel a d n t m in the tub s f llo v g th
j j t i of l i ng m m m l a n k d n v g g t
that tl tubul d t p l y a larg part n the
p o d t o n f b k l

Th living k l v f the frog app tl pr
s nt diff nt m h i m it tubul re
v l y i l l d

I th a th i n i th t n p y l o u
b a k l a g l o f u u l t o m a th
p s g f u b t a f m th l p l t th
nou ur ult

In on lu n (l t t th t t l i p h o m n
l not ur by v f th t bul b t th
r ute by h h t l o u h i o t v t b n
lemon tr t l J S R M D

S c t n M Py lon pl ti tl tl Azotæm
Synd me (P el th i v d m i m i)
J d l d i i j 3

Se et r i t t o c s f a t v f p y l o
nep h t n h h p i a t i n s m m l b t t h
l i n of th r l p h y m a r e s o p o u n e d
that th j i l t n c v f r e l f u n t o m y
bring abo t fatal æm ith n a f m th s l l e
cl m s th t th i th h t p o r t b m d f
p i m a r v p y l e p h i t v th the z o t æ m c s a d o m

After a p o d of e p t i c æ m i v h i c h m a y m
t m e g v r i t a l a r m g s y m p t m s the in f c t i n g
o g s m r e a c h th k i d n y The k d n e v e n d e a r s

to fr c its l f of the i v a d e s by eliminating them
thro gh the u n f e o u tubules but almost s mul
t n c o u l t h c d e v l o p s an infection of the renal
pelvi the g n a l and urinary symptoms of h i c h
u u l l y m a s k the r e a l s y m p t o m s

A f t e r t h e t r m n a t i n of the per d of septicæm a
b h t a p h r t a l a p y e l i t i s p r s i s t Thro gh
s b a c u t e l t i o n th n p h r i t s m a y r e s l t i p r o g
g i r a l i n s u f f i c i e n t y The g a v i t y of p y e l o n e
p b i t s d p e n d n o t n l y n the in f e c t i o n and s u p p
r t o n b u t a l o a d a t a l l s t a g e s of the d i s e a s e o n the
f u n c t i o n of th k l n y s

I b t h of the c s e s e p o r t d o n e of the first
l n c a l m n f t a t i o n w a s a p a i n l e s h æ m a t u r i a
th u t c l t o r b l a d e r p h e o m e n a

S c t a n d i c u s e th v a r i o s f o r m s of p y l o e
j b t s n d th r d e v l o p m n t I n the d i a g o s
the h f l t r s t o b e r l e d o t v e l i t h i a s a d
t u b c u l o s E v e r y p o s s i b l e c a u s e f r e n a l e t e t o n
s h o l d b e l o o k l f o a n l the n t e u r i n a y t r a c t e x
p l r d f o m th u c t h r a t o the renal p l y s

UNNA L PAC

Ughely J The Unu IO r r r e n e of T o T y p
of Tumo One k d n e y l i y p e r n e p h r o m a a d
Sar om (E l t F l l G
h l l N H p p h m d
S k m) Z i f l C i 9 8

A f t e r t o l o c u t o r y b t i o n s n the nature a d
t r t u r f t u m o f the kidney th a u t h o r r p o r t a
n d e t i l the l i n a l n d p r a t i e f i n d i n g s i n a c s e
n h b t h r o c c u d i n o n e d the s a m k i d n e y
a p u e h y p e r n e p h m a i n o n e p o r t o n f the o r g a n
and a s o m t e l y i l p e d n t of th h y p e r
n p h o m n o t h p t o n

A l a r c p o r t e d b y L b a r s c h i s i t d I n
th a t h o r a s th a m a v h i c h s of the
f n d l l t y p h a d p e t r a t e d th r n a l i n a l
n l p h i s Th p t i t l i d t h r e e h o r s a f t e r the
o j a t i o n N o a t o p s c p o t i g n The c l e a l
d g n o w a m a l i g h t m o t h s b f o r e the p e r
a t n F L F R (Z)

M t l e C I Renal Surge v—Its P i t f l l a d
G m p t c t o n C I j l l i M d 9 S
x 5

M t h e c s 370 c a s e of r e n a l s r g r y i t h r e
g a d t p i t f l l n the s u r g i c l t e c h n i q u e and th d e
e l o p m e n t f c o m p l i c a t i o n h p u r p o s e b e g t o
d e t e r m e h o v the t r e t m e n t m a y b e i m p o e d s
th t s b p t a l l and i m p l i c a t i o n m a y b a v o i d e d
n the f u t u r

Th m e m m n c o m p l r t n s e e h c k m
t s s h æ m h a g e n t c e c a d i a c o m p l
c t i o n f o u r a s e s p h l e b t i s i n n i n c a the
f r m a t i o n f a f i t u l a d i c h g n g u r n e d p u s i n

six cases anuria in two cases pneumonia in one case septicæmia in one case cervical neuritis in one case and abscess of the kidney overlooked at the time of the operation in four cases

Before renal surgery is undertaken a careful pre-operative estimate of the function of both kidneys should be made to eliminate patients who are poor risks. Unstaking pre-operative and postoperative care does as much to lower the mortality as good operative skill and judgment.

Many pitfalls associated with renal surgery can be eliminated by improvement in the operative technique. Excessive retraction and loss of blood must be avoided. Injury to the tissues may be reduced by a wide incision and careful dissection of the kidney from the pleura, liver, peritoneum and other viscera. In the liberation of the organ from the peritoneum which is in apposition to the pre-renal fascia blunt dissection should be employed. A wide crescentic incision beginning at the point of the articulation of the last rib with the vertebra and extending well anterior to the anterosuperior spine of the ilium gives sufficient exposure of the pedicle even when the latter is short and the kidney is high and is entirely behind the peritoneum. Incision of the costovertebral ligament allows greater exposure by permitting retraction of the ribs upward.

The space between the last rib and the crest of the ilium can be appreciably increased by the use of a stabilizer which raises the lumbar region from below, keeps the under leg firmly flexed and the upper leg extended and causes counterpressure on the abdomen from below. The high left adherent kidney is best approached by the extraperitoneal abdomino-thoracic incision.

In nephrectomy the renal vessels should be doubly ligated individually if possible. If they cannot be separated the pedicle should be doubly clamped *en masse*. A ligature should be tied above and below the clamp and the clamps released during the tightening of the ligature.

For the success of conservative renal surgery the elimination of stasis is essential.

L. C. CRASS, M.D.

Verz H. Roentgenographic Measurement of the Compensatory Hypertrophy of the Kidney Remaining After Nephrectomy. (La mesure de l'hypertrophie compensatrice du rein restant après néphrectomie par la radiographie). *Chirurgie et maladies des organes génito-urinaires* 1927 III 6.

Verz states that if two roentgenograms of a patient are made under identical conditions before and after nephrectomy, it is possible to follow the contour of the kidney, to measure the surface of the organ and by comparison to appreciate the increase in the renal area and hence the volume of the organ. In determining the surface of the roentgenographic image he uses the Hirtz method. His observations included twenty-six cases in which nephrectomy for renal tuberculosis had been done from several weeks to several years previously. Compensatory hyper-

trophy was found in every instance but the author's conclusions are based on thirteen cases in which the operation was performed some time ago and numerous subsequent clinical, bacteriological and serological examinations had been made.

These cases indicate that compensatory hypertrophy of the kidney remaining after nephrectomy is generally very marked, being evidenced by surface increases amounting to about 33 per cent. The kidney never doubles its volume. The hypertrophy involves the entire organ, the contour shown by the second roentgenogram following that shown in the first one and it being fair to assume that if the two visible diameters are greater, the third diameter is also greater. The kidney often drops 2 or 3 cm. as it hypertrophies, the inferior pole being sometimes at the fourth lumbar transverse apophysis or at the iliac crests.

The hypertrophy appears within a few weeks after the operation and reaches its maximum in from twelve to fifteen months. It is lasting. The duration of the disease at the time of the operation is an important factor determining the amount of the increase. If the disease was present for some time before the operation, the healthy kidney had some time to make up for the deficiency of the diseased kidney and its postoperative increase in size will therefore not be so great as if the disease was present for only a short time. The hypertrophy is greater also in young subjects than in older subjects and in persons in good general condition than in those with other lesions.

The conclusions drawn from cases of renal tuberculosis especially as regards the influence of the degree of evolution of the condition at the time of operation were borne out also in twelve cases of hydronephrosis.

WILLIAMS

Carson W. J. Dilatation of the Ureter in the Male. Autopsy Findings. *J. S. G.* 1917 1 54.

Of 185 consecutive autopsies on males ureteral dilatation was found in 23 (12.4 per cent). It occurred on the right side in 5 cases, on the left side in 4, and on both sides in 14.

The dilatation of the ureter was accompanied by hydronephrosis in 21 cases (88.5 per cent).

In 11 cases (47.7 per cent) the etiological factor was infravesical obstruction.

Ureteral stricture was found in 5 cases. In 4 it was inflammatory and in 1 congenital.

J. SYDNEY RITTER, M.D.

BLADDER URETHRA AND PENIS

Hortolomei. Bladder Wounds with Very Slight Symptoms. (Plaie de la vésie à symptômes faibles). *J. de médecine et de chirurgie* 1926 286.

The author reports two cases of wounds of the bladder, one caused by shrapnel and the other by a revolver bullet, in which the symptoms were very slight. In the first case the shrapnel entered the

implantations Beer opens the bladder with the radio knife and after coagulating the tumor with the current removes it with the cutting needle. Of thirty three cases in which this method was used 83 per cent were apparently cured. After the operation the bladder should be re examined regularly with the cystoscope. Washing of the wound with pure alcohol prevents new implantations because of the coagulation it causes. Beer has used the operative technique described in cases of carcinoma and papilloma. If the neoplasm is found to be non resectable he destroys it with radium. Apparently good results were obtained in 60 per cent of cases of papilloma and 35 per cent of cases of infiltrating carcinoma.

The application of radium emanations through the cystoscope gave apparently successful results in 50 per cent of the cases. The mortality was highest (33 per cent) in cases of non resectable tumors situated near or at the sphincter in which radium was applied in the open bladder. In only 6 (30 per cent) of 31 such cases was an apparent cure obtained.

In 17 cases of carcinoma in which deep roentgenotherapy was tried it occasionally caused an amelioration of the symptoms but in no instance resulted in a cure.

ANNA L. PACE

Ingebrigsten R. Cancer of the Bladder Treated with Radium. Cure of Seven Years Duration (Cancer de la vessie traité par le radium guérison depuis sept ans). *Bull et mém Soc nat de chir* 1917 lxx 1291.

Ingebrigsten reports a case of cancer of the bladder that he treated with radium seven years ago. The patient still remains cured. The diagnosis was made by the Pathological Institute of the University of Oslo on the basis of a biopsy specimen taken at the time of cystostomy. The treatment consisted in the application for forty eight hours of 110 mgm of radium bromide with a filter corresponding to 3 mm of lead. The tubes were placed in contact with the tumor by tamponing the bladder. The bladder incision left open until after the removal of the radium healed normally. The patient left the hospital eight weeks after the treatment. In the two examinations that have been made since that time the last one in October 1927 no recurrence of the tumor was found.

ANNA L. PACE

GENITAL ORGANS

Hunt V. C. Immediate and End Results of Suprapubic Prostatectomy. A Consideration of the Factors Involved. *Can J U Ass* 1927 xii 1462.

Certain changes in the management of hemiprostatic hypertrophy of the prostate gland following suprapubic prostatectomy have resulted in a great reduction in the mortality and improvement in the ultimate functional results. Cardiovascular disease is as important a consideration in the immediate and

end results of prostatectomy as renal insufficiency. The chief essentials for the most successful treatment of surgical hemiprostatic obstruction are pre operative treatment and accurately visualized operative procedures.

Recent investigation of the relationship of preliminary treatment to the mortality following prostatectomy has definitely established the necessity of such treatment in all cases. It has been shown that the mortality rate in the best surgical risks without preparation approaches closely that in the exceedingly poor risks requiring long periods of pre operative preparation and is twice that in the best surgical risks with the advantage of adequate pre operative treatment.

The important factor in the preliminary treatment is drainage of the bladder. This is accomplished more satisfactorily by means of the urethral or suprapubic catheter than by intermittent catheterization.

Drainage permits the recovery of renal function and stabilizes the cardiovascular renal reserve. It should be continued until the renal functional tests have become stabilized within normal limits and the general condition has improved to the maximum. In many instances the maximal safety of prostatectomy may be assured after a period of from ten days to two weeks of pre operative treatment, but if the patient is in poor general condition with marked renal insufficiency it may be necessary to drain the bladder for months before the operation can be undertaken with any degree of safety. Experience has led to the adoption of a minimum of ten days drainage of the bladder even in the most favorable cases.

Usually suprapubic prostatectomy is performed in one stage but associated conditions such as vesical calculi vesical diverticula severe cystitis marked renal insufficiency requiring prolonged drainage and senility forbid the routine adoption of the one stage operation. In carefully selected cases adequate drainage of the bladder may be obtained by means of the urethral catheter and in 75 per cent of them this facilitates the one stage visualized operation which permits application of the general principles of surgery—adequate exposure accuracy of conduct and complete hemostasis.

The type of anæsthetic used is of importance in prostate surgery. It has long been realized that in halation anæsthesia should be avoided. Regional anæsthesia approaches the ideal as it possesses none of the disadvantages of general anæsthesia and is devoid of the potential dangers of intraspinal anæsthesia.

The type of operation performed for the removal of the prostate gland unquestionably has some bearing on the mortality rate and ultimate functional results. The one stage operation which is readily applicable to 75 per cent of the cases is preferred. In certain cases the two stage operation is necessary to reduce the risk but it possesses the disadvantage of blind extirpation of the gland which sometimes results in incomplete removal of adenomata and

leaves an irregular vesical neck with mucous membrane tag a potential and often an actual source of subsequent obstruction. As a group the patients on whom a one stage operation is performed obtain better functional results than those on whom the two stage operation is performed. Except in cases in which obstruction of the vesical neck develops after the two stage operation the functional results in terms of symptomatic relief are less dependent upon the type of operation than upon the degree of pyelonephritis. Since the one stage operation is the one of choice and applicable in 75 per cent of the cases and since the two stage operation is reserved for patients who are poor surgical risks usually on account of advanced pyelonephritis the result of the two stage operation under the circumstances of this particular selection of patients is a not as good as those of the one stage operation nor as good as those of the two stage operation applied to patients who are good surgical risks.

Hæmorrhage of great importance in prostatectomy. Of the various hæmorrhagic measures used to control bleeding at the vesical neck and compression of the prostate capsule have proved the most efficient.

The author reports the results obtained in 995 cases in which the suprapubic prostatectomy was performed at the Mayo Clinic during the five year period from January 1921 to January 1926. There were forty-two surgical deaths, a mortality rate of 4.3 per cent. These included all deaths whether the immediate cause was or was not directly related to the surgical procedure.

Fifty-four per cent of the patients were entirely relieved of symptoms. Sixty per cent were markedly relieved and 14.2 per cent were moderately relieved. The following per cent were metastatically fitted by the procedure. Those patients who were not fitted by the procedure were in whom irreparable injury to the kidneys had occurred. The result of long standing urinary obstruction with persistent and progressive pyelonephritis.

Bifford W. T. and R. L. H. G. Obstruction of the Prostate Gland. The Study of 3,000 Cases. J. Urol. 97: 1-97.

BEILFIELD, I. R. L. H. G. H. Attentive to the fact that the patients subjected to the pyelotomy and emollient massage procedure in the urinary tract by heat and the administration of the albuminuria in cases taken for renal albumin. In experiment the intravenous injection of methylthylene blue lumbar puncture and the subcutaneous injection of phenol into the dog with the

oral administration of pyridium to man they demonstrated that the seminal ducts of the dog and of man excrete certain foreign substances introduced into the circulation. On the basis of this demonstration they attempted to influence infections of the seminal duct by means of chemicals introduced into the blood. In fifteen of thirty cases of non tuberculous prostatic ecchymosis which were refractory to the usual medical treatment all evidence of infection promptly disappeared following a few injections of neoarsphenamine or sulpharsphenamine.

The authors conclude that in chronic prostatic ecchymosis and its complications internal medication with arphenamine may decrease the number of operations which are performed for this condition because of the failure of the usual medical therapy.

CAMPBELL states that clinical and experimental observations in 3,000 cases of acute gonorrheal epididymitis admitted to the Urological Service of Bellevue Hospital, New York, indicate that the best nonsurgical treatment consists of rest in bed with splinting of the scrotal contents by an adhesive suspension bandage and the application of a ice cap (without urethral treatment in gonorrheal cases). Epididymotomy afforded immediate relief from pain and is indicated in one of every fifteen cases. On the average the patient has operated upon hospitalized for only three and seven tenths days longer than the patient who is not treated surgically. The prevention of postoperative scrotal hæmatomata is aided by a scrotal compression bandage described by the author. Most complications result from secondary infection. Loss of the testicle causes great anxiety. A careful follow up of the limited series of cases indicated that the results less frequent than the bilaterally involved organs subjected to epididymotomy.

J. G. CHESTNUT, M.D.

MISCELLANEOUS

Helmholz, H. F. Abnormalities of the Uterus. J. Urol. 97: 1-93.

The author lists not merely to list a series of congenital anomalies of the urinary tract in childhood but to emphasize that such anomalies are plentifully often present in apparently normal infant and children. By the pediatricist. They can be detected by a full questioning with regard to urinary function and symptoms. A full anatomical and venous areas and the bjecting patient through pyelitis that cannot be detected. A full short period of intensive treatment must be complete urological examination. Only the case of the venous gland of the ureter is not parhymic. I suggest as the result of continued urinary tract surgery. I feel on

SURGERY OF THE BONES, JOINTS, MUSCLES, TENDONS

CONDITIONS OF THE BONES JOINTS MUSCLES TENDONS ETC

Todd T W and Her D H The Phenomena of
Early Stages in Bone Repair *11 Surg* 1927
1000 1 715

In their studies of the phenomena of bone repair the authors attempted to answer the following questions: What are the essential principles common to bone repair in different sites? Do all parts of the fractured surfaces and their immediately adjoining bone take part equally in the repair? What is the time relationship of the occurrence of the several phenomena of bone repair? Does the time relationship vary with the site or with the mammal? What modifications in the structure of repair are entailed by the type of fracture? What evidence is there of the site of origin of the definitive callus?

They first cite the findings of Sullivan, Bast and Geist who studied the histological changes involved in bone repair in rabbits following saw cuts of the upper tibia. The findings of these investigators were as follows:

On the first day sections showed clotted blood filling the cut with giant cell about the bone splinters produced by the sawing. The cambium layer on each side of the cut was thickened by proliferation of its cells. The fibrous periosteum was edematous. No endosteal change was apparent.

On the second day masses of fibroblasts began to organize the clot. The cambium layer was thickened on each side of the cut for a distance of from one eighth to one fourth of the bone circumference. Proliferative changes began to appear in the endosteum.

On the fourth day new bone was present as dentations under the cambium layer and as long slender coalescing spicules extending into the marrow cavity.

On the fifth day cartilage surrounded by fibroblasts appeared external to the cambium layer. Absorption of bone began beneath the external callus which itself appeared more cancellous than before.

On the sixth day internal callus completely bridged the cut and extended into it.

On the seventh day the external callus was extending into the then more advanced erosions of the cortical bone.

On the eighth day this union of the external callus with the eroded cortical bone became more intimate and the internal callus showed signs of dissolution.

On the ninth day the external callus also had entered the cut and many osteoclasts were visible in both the external and the internal callus.

On the tenth day the external and internal callus had joined within the cut.

On the twelfth day the definitive callus had become cancellous, the external and internal callus

were reduced in amount and more advanced absorption of the old bone was visible on the surface of the old cut.

On the fifteenth day new bone completely filled the cut. There was transformation of the new bone by a process which did not require the presence of osteoclasts and embryonic fibroblasts lay over the external callus parallel with the bone surface indicating the direction of future periosteal fibers.

On the sixteenth day erosion was still marked in the old bone surfaces and the external callus was much reduced. A line of osteoclasts was observable under the cambium layer.

On the seventeenth and eighteenth days this excavation of old bone continued and the erosions were rapidly filling with new bone. The new bone was taking the form of Haversian systems.

On the twenty first day the external callus was entirely removed and even the bone plate in the cut was reduced in thickness.

On the twenty fourth day the internal callus had almost entirely disappeared.

From these findings and those of their own investigations the latter including a study of the skeletal material found in the Hamann Museum of Western Reserve University the authors draw the following conclusions:

The two processes going on side by side in fractures without mobility of the fragments are erosion and proliferation. Callus begins to appear on the fourth day and erosion is apparent by the fifth. In normal actively growing bone there is an essential exaggerated vascularity in response to the increased demand on the part of the bone for more than ordinary nourishment. This phase is compensatory rather than causal.

It is obvious that osteoclasts are not absolutely essential for absorption since erosion is found in their comparative or even total absence.

Failure of the phenomena of bone repair to develop is related to the patient's age.

When periosteum is elevated from bone adjacent to a fracture the bone often suffers a reduction in its vitality, shows no erosion and takes no active part in repair. Such bone is not dead but ultimately becomes incorporated in the new structural bone.

Free movement of fragments does not inhibit the normal repair process but if fractured ends of low vitality rub against each other—and bone fragments cannot rub against each other without reduction of their vitality—friction facets similar to the occlusal and interproximal facets of teeth are speedily formed. Such facets develop within two weeks after fracture and are usually described as polished or eburnated areas. They are found most often in rib fractures but may appear in fractures of the long bones.

Endo t um o cancellous tissue is of great im
porta e n bone r pair As compared v th endos
teum and tl e mb m lav r compact ti ue takes
but little p t n th f rmat of new b ne t acts
as a scaffolding p h h th n bone is laid
do n

Bo e r pai is qui k t he e cancellous t ssue is
relat vlv m st bu lant and m b lity is slight or
absent a th v r br x d n fssur d nd green
ti k f ctur r j r qu k t

V I S V D

Keitl Si A C n n ng th O g n nd Nature of
O t bl ts P I S M L I g

Keth l rib the e p me h g the
f m t n f t loie nlar otomy u l f th
i ga t i g A of the l t ratu e dem n
s th e f m t oc el lapa t m v o l
m le in e r the p a umbil c part of the l n e v
lla Th u eum f the R l c l l e g f Surge n
cont r f c e t h e t p c b n formati n
o g s an l pat ha i g direct o n e c t i n th
th k l t l v tem A att mpt made t xplai
uch b f rmat n o th h a f the t adu n l
concept il g o th that it the k fa
spec l i e l f m lly c n f n l to the keletil
v t m

The co cl n lra th t the l terotop c
form t f b t b pl e d unles t b
acceptel sal at d by Lersch that i certain
st te cell of t ue o th r th a skeletal t ue
can bec me t b l e n n t u r a n l c t n—

s p p t d by th result f many recent v
per me tal n e t g t n The v e ad ocate l
th v t l th t n ot obla t r i e s o m the
capill v v tem—e pec lly fr m bud th n ut
by th t v tem hen a neighb g sub t c
body to b l s bel Keth r e i e w certai
nec r v c l t o r s but admis that full and
sat factory v l a n a n of the m r e f e q u t o c c u
e e f h e t o t p i c b n e f m t n i s p a umbil
cal scar a m p a e l v th s e in th r pat f
th v b l o m ha o t v e b e n e a l e i

H L e C v V D

Pik L Th An t m c Ro ntgenol gical D f
f n t l Dagn s of Sypl r and Fib ou
Dy tropi of tl L ng B n (Z r t m h
t t l m h D f t k l g l S ph l
i ub D t ph d l h k h)
/ t all f c l 9 l 3 9

Of th l e t c d as of th l ng bo s the
d f f use hype t t f o r m t b d f f r n t e d
f m f b o t l s t p h v (Paget di as
o t e t s fibr) Th c d t n u s n a c q u r d
v d l t e c o g t l lue and l k e e u s v ph l
g e l a t t a k m o t f r q u n t l y the t b adu
an ul n The n l e d b e s a r d e b l
thick d partly cl r t c p a t l p o o t a l h e
a soft n f c The m d l lary ca s t y m o e

or less filled by a spongy new growth The pen
o teum is al avs in olved sometimes more than
the bone

Fib ous o teodystrophy has no relat on to d f f use
hyperostic bone yphilis and is not as is some
times assumed a maifestation of late hereditary
yphili or a para yphilitic disea e Each of these
co d t o n s h s a d i n t i c h s t o l o g c a l c o u r e n d
result a d n t g n p c t u r Luetic osteit s and
hyp rostotic osteomyeliti a e characteri d by a
ch nge of the marro n to granulation t ssue wh
pro id for r o r p t on and e format on of bone
In fib ous teodystrophy the marrow is changed
n t o f r o u s t u e s o p t i o n of bone occu s thro h
th act on of g n t c l l s and new bone is formed as
o t e d t u u

An th c d d r e n e s the nature of the involve
me t of the p r s t e u m In fibrous osteodystrophy
the bon ch nges o far as the perio teum is co
c r d o c u r in one stage

A th r d l f f e n c e is the change in the marr
v t In fibrou ost odystrophy this cavity is
ill l th f i t t y r d marrow v h i l in the l u e t i c
c d t n i t s more or less replac d by ne lv
f r m d s p v b o

A f th d f f c s that in the l u e t c d e a s e
th i c a e i the length of the bone is a result of
and mmato v t m u f i t i n o f th e p i p h y s a l c a r t i l g e
n d b i n g is the result of the e l g t i o I
fibro s osteody trophy the inc ease in length is the
r l t of total n t r n a l o v e p r o d u c t i v e ch a g e in
s t u c t u r

Th pathologic o n a t o m i c a l d i f f e r e n c e s may be
s e n d i n t h y in the ro n t g n p i c t u r e Therefore a
ro n t g e n v a m t a t o n i of sp c l v a l u e hen other
l a l a l s u h a s the h i t o j and the Was e r
m a n n t i s d e o u b i f u l H c h (Z)

H h E F and Ry rson E W Metast es of
the B ne in P i m r y Carcin ma of th Lu g
A R l w of S C l l d Endotheliom t of th
Bon l / S g 9 8

Meta t a e to b o c c u r in a large u m b e r of
c a e f p r i m a r y a o m a of the lung a d i n
m e c a the s y m p t m s c r u e d by the b e t u m r s
l o m i at th c l i n a l p c t u r e

The a u t h o r s r e p t the c l i c a l c o u r s e a d a u t o p s y
f i n d i g s n f u r case wh ch the b o e m e t s t s e s
c u d the h e f s m p t o m I t the s e c n d a y
t u m o e m v e l s g e a l l y d g l f e h d b e e n
l a g n o d p r m a y and the l o m a t a of the b o e
I n a a t h o f b v h o a s i v s o f g e
h h l d d a g n o i of metastatic c i n o m of
t l f f t b i a m a d e a y e a r b e f o r e d e a t h b u t a t
t l t m a c e f u l p h y s c a l e x m t i o n f l e d t
d c l the p r m a y t m

A i a l v of the p o t of so call d end the o
m a t a f b n l e m n s t a t e that m v of th s e e
p t a e b e d n a s t u d y of tissue remo
g c l l m c e h h n a u t o p s y a o t p r
f m d l t e o r o t o d e th u f f i c i e t c r e
r e l p r m a r c a r c i n o n a of th l g

Metastatic carcinomata of the bones are easily confused with other bone tumors. Therefore a diagnosis of endothelioma of bones in surgically removed tissues containing cells resembling epithelial cells in the alveoli and tubules should be checked by a thorough postmortem examination in which all parts of the body are carefully examined.

H FARLE CONWELL M.D.

Walmesley T. The Articular Mechanism of the Diarthroses. *J Bone & Joint Surg* 1928 40

Diarthroses serve two functions—weight transmission and movement. The first is secured by the articular mechanisms the second by the muscles. By the articular mechanisms diarthroses are functionally transformed into synarthroses and transmit weight without active contraction of the muscles.

At the hip flexion is limited by extra articular factors but extension is definitely limited by two articular mechanisms. As the capsule is twisted and shortened it forces the head into the acetabulum like a screw until at 15 degrees of hyperextension the surfaces are congruent and the joint is locked. The head and acetabulum are not spherical but so shaped that their surfaces can be congruent only in hyperextension.

W. P. BLOUNT M.D.

Smith R. The Relation of the Surgical Pathology of the Right Lower Quadrant to Arthritis. *J Bone & Joint Surg* 1928 57

Taylor R. G. Surgical Lesions of the Right Lower Quadrant Demonstrated in Patients with Chronic Deforming Arthritis by X-Ray Opaque Meal Examinations. *J Bone & Joint Surg* 1928 56

SMITH discusses particularly the relation of cæcal stasis to polyarthritis.

Clinical evidence indicates that chronic polyarthritis is due to the absorption of bacterial toxins or toxic metabolic end products due to an unbalanced ileocecal flora dependent upon ileocecal stasis and an occasional shower of bacteria from the same source. In the presence of a mechanical block of the cæcum it is almost impossible to change the flora to normal but after removal of the block the same dietary treatment which failed to influence either the flora or the symptoms before the operation will result in cessation of the pain stiffness and contraction due to the arthritis. In Smith's cases the following examination and treatment are given:

1. The ordinary sources of focal infection such as the teeth tonsils sinuses and pelvis are investigated and if necessary cleaned up.

An X-ray examination is made of the gastrointestinal tract to determine its mobility and motility special attention being paid to the ileocecal coil.

3. A balanced diet is given for forty eight hours in order to obtain a standard for comparison and on the morning of the third day a stool smear is obtained from a freshly collected specimen.

4. If the stool examination shows unbalance and the X-ray reveals no gross pathological condition the patient is placed on a medical regimen designed to restore the normal intestinal flora.

5. In cases with distinct cæcal block and prolonged cæcal stasis the medical treatment is preceded by operation.

After the stools have become normal and the joints cold any type of operation or manipulation can be performed on the joints without causing a reaction.

Taylor states that in roentgen studies of the gastrointestinal tract in cases of chronic deforming arthritis he has found the best procedure to be the use of the single meal followed by immediate observation and observations at six nine eleven and twenty four hours and every twenty four hours thereafter until no further information is obtained. In some cases these observations should be followed by an enema and in the majority a dye study of the gall bladder is advisable.

The best evidence of obstructive lesions in the ascending colon ileum and cæcum and of the motility and mobility of these portions of the intestinal tract is obtained at the nine hour observation. The only satisfactory way to demonstrate such lesions is to examine the patient under the fluoroscope in the standing position. The most important factor responsible for stasis is a twist in the ascending colon. When the cæcum is dropped into the pelvis in the standing position a rather characteristic crook or kink appears usually just above the ileocecal level and at the lower border of the membranous attachment. At this level and distal to it there is definite thinning of the barium shadow due to narrowing of the bowel by torsion. Subsequent twenty four hour observations are important in demonstrating the delay in emptying.

THOMAS B. A. Gonorrhœal Arthritis. *J Clin Med* 1927 1 174

The incidence of arthritis as a metastatic complication of gonorrhœa has never been high averaging only from 1 to 3 per cent. Males are far more frequently affected than females. In the vulvovaginitis of children and in gonorrhœa and ophthalmia neonatorum joint involvement is rare.

Not infrequently the joint condition is precipitated by trauma applied directly to the joint or in the form of ill advised or careless urethral instrumentation or treatment excessive activity or sexual excitement during the acute stage of the urethritis. The arthritic symptoms in the acute stage of a gonococcal infection usually manifest themselves during the second or third week but joint involvement may supervene at any time in the acute or chronic course of the disease or the complications it produces in the urethra or the uterine adnexa.

It must be conceded that the arthritic manifestations of gonorrhœa are the metastatic exponents of a blood borne infection. There are assuredly many instances in which the joint fluid is found to be

sterile—a toxic in co tradit action to a bacterial synovitis—a d in wh ch the bacteria localizing n the epiphyses of the bones cartilages or synovial membranes e oke aseous effusion into th synovial sac of th joint by th nflammatory action th y produce. In the ases d pendig upon such factor as th vul e f the i fecti and the v tal resist c of th pati t bacterial invasion of the j nt occurs p actically at the onset f the n lve ment

In th auth pe ence gonorrhoeal a thritis has bee p hartic l n 58 p cent of the cases. In de e l ng or l r of the f e q u v f th ir n v l v ment th j nt t t a c d c th k ee ankle h p to sh lde phar g al joints elbow metatars ph l g al joi t pine m t carp phalange l joi ts sa o i l c t i c i o n temporomaxillary articula ti n d st e r n c l a c i l a r t i c u l a t o n

Clin ically the ous pathologi typ s a e d i v l d n t a c t e and h o m i c g r o p s a t t r e a t d a o d n g l

The sympt ms of gonorrhoeal a thritis n its acute n l b r n forms d o n t l f f r m t r i l l y from those of arth r du to th r n t o n Th gon o c c u s m v u a u p p u t t e s i f m m t i o and n the m l c m t t e j o i n t i n l e m n t n a s i f r m m e d p v o g e n p t g n o r h o e a l f i l u r k i n g i n t h s m i a l c l p r s t i g l a n d

The l a g n s of th g n c i r g i of s y n i t s a t h r t c c n g s t h e n d o t h i d k f u t g h r a d s o t f i a n y l f f u l t i t h d i f g o n o s t h g i t o u r i t y t a t r t p p l g b n g a l m t o n l u c e and t h p s e n f g o n t h e a p a t e d f l u i d f t h s j t l j o i t b e n g p t h o g m o c t h t d n v t o l r a p i l p o l y a t u l a r v o l v e m n t of the large j n t a l h a a c t e t i c

A c t e r h a l a t h r i t m u s t b l f f r e n u a t d f r o n a c t e h e u m t c f v The l a t t e j p o n t o b e m o r m g a t r y t h g o n o c i n f t o n and t h r e t t n l c a l l of th j o i n t b u t t h f i s t j o i n t t b e a f f t d i n d t o b c m f e f r m j m p t o m a t h e l a s t a n v l e d h r i g o n o r r h o e a l t h i t h e s y m p t m s p e r s i s t i b f i s t j o i n t a f f c t e d I h e m t c f e r t h e j o i n t s y m p t o m a m o a t e t h t e m p e r a t e s h i g h r n d s v e t i g a n d p r s t a t i a r m o r m a r k e d I l w e e r c h i l l s and e a t s m a y o c c u r a l s n g n o r h o e a l a r t h r i t i f t h e i f i m m t i n b o m p l e n t

The p r o n o s i g n o r h o e a l a t h i t s s h o u l d a v b g u d e d I t s d i c t e l y d e p e n d e n t u p n the p r o m p t n o f t h t r e a t m e n t and i b e t t e r n the u m t h a n t h e h o n c o f m of the d s e a s e

The t r a t m e n t of gonorrhoeal thritis emb ac not only th manag ment of th j nt but al th b l c l u r e t h r a l a l l f o o f i n f e c t i o n p l s t h e t e m c i n v a s i o n h i c h n o t n f r q u e n t l y c o t s A b s o l u t e r e t f t h e f l e c t d i o r t f o a c k t w o i o b l g a t o r y n d m y a e t h e p a t i t w e e k s o r y e a r s of d i s a b i l t C a u t i o m s t b e u s e d h o v e a n o t t o i m m o b i l i z e t h e j o i n t t o o l o n g

Antigenococcus serum should be given intravenously or subcutaneously or ortho odoxyb nzo c a c i l d m n i s t e e n t r a v e n o u s l y a s s o o n a s p o s s i b l e t h e f o r m e r b e i n g r e p e a t e d i n i n c r e a s i n g d o s e s e r y o t h e r d a y f o r t h r e e o r f o u r i n j e c t i o n s a n d t h e l a t t e r r e p e a t e d t c e v e e k l y f o r t h r e e o r f o u r v e e k s

The author s e p e r i e n c e w i t h m e r c u r o c h r o m e c a l c i u m h l o r i d e a n d P r e g l s i o d i n e h a s n o t c o n v i n c e d h i m of the r e p u t e d v a l u e of t h e s e c h e m i c a l s I n t h o c a s e t h e u e of P r e g l s i o d i n e w a s f o l l o w e d b y a n b l i t e a t i v e p h l e b i t i s

W h n t h e p a i n i s s e e e c e m of a 5 p e r c e n t s o l u t i o n of s o d i u m s a l c y l a t e a n d f r o m 15 t o 30 g (t o 2 g m) of s o d i u m i o d i d e w i l l o f t e n g i v e g r e a t r r l i e f

I n r a r e c a s e s of p u r u l e n t f l s i o n s a t h r o t m y m a y b e n e c e s s a r y b u t a s a r u l e a s p i r a t i o n a n d r i c t i o n of the j n t (o n l y i f t h e f l u i d i s p u l e n t) t h t h s p e c i f i c a n t i s e r u m o r f r o m 5 t o 20 c e m of a s o l t o n of f o r m a l d e h y d e a n d 2 p e r c e n t g l y c e r i n r e p a t l f n e c e s s a r y a l l b e s u f f i c i e n t

I n l l c a s e s l o c a l g e n t o u r n a r y t r e a t m e n t c o n s i s t i n g o f r i g i d i o n s p r o s t a t i c m a s s g e a d m e d i c a t i o n of t h s e m n a l v e s c l e s p e f e r a b l y b y v a s o p u n t r o o i f t h e r e a r e a b s c e s s e s d r a i n g e of t h m i n i c s l e a n d t h e p r o s t a t b y p e r i n e a l o p e r a t i o n s h o u l d b e d o n e a s s o o n a s e p e d e n t

H y p e r m a b y B i e r s m e t h o d o i n d u c e d b y s p r h a t d r o b y e l e t c i t y o t h e s u b i d e c e of t h a u t e l l i n g f o l l o d b y p s y c h a d a c t v e m t i o i n v r y b n e t h l H E A R L C o E M D

Fisher A L Some Con siderations of Second Typ A t l i s E x m p l i f i e d i n the Shoulde J t J B J 15 g 98 46

I h e r c a l l a t t e n t i o n t o t h e f a c t t h a t k f o d b e l v e h a s d e m o n s t r a t e d a m o e b a i n the l o c a l z e d a c a f t h e c o n d t y p e of a t h i t (o s t e o a r t h r i t i s) t h t i n a l o u t 60 p e r c e n t of c a e of a r t h r i t i s e n i n C f l a s t h e s t l s h a n a m o e b i c i n f e s t a t i o n a n d t h a t i n u m e r o u s c a s e s t h e o a l a d m i n i s t r a t i o n of m e t s h a s b e e n f o l l o w e d b y r e m i s s i o n of t h s y m p t m s T h e o b s e r v a t i o s u g g e s t a n e t i o l o c l l u t i s h i p b e t w e e n e n t a m o e b a i n a n d t h e s e c o n d t y p e f a t h r i t W P B l o o r M D

Lowman C LeR Continuous T r o n t i e T a t r m n t of Spinal C o n d i t i o s N t a b l y S o l i o i s J B C J 15 g 98 14

I n t h e t r e a t m e n t of s l o s s b y c t i n u o u t a t i o n s d r i b d b y L o w m a a v e r y i g e n o u m e t h o d i s e m p l o y e d f o r t h e c o r r e c t o n of s p u l r t a t i n W i t h t r a c t n a p p l i e d t o t h e h e a d a d p e l v i n t h e u s u a l m a n e r t h e b o d y i n c e n t r l d b y d h n d of c n a u d e r t r a c t o v h h p a s o v e l g s p o o l o n a g s s p e e t n l g f o m t h h a d t o t h e f o o t of t h b e l l e s b d s a r e p l a e l t t b e y t e d t o l r o t a t e t h r o t a t o b t a i n p u l l T h e p u r p o s e of t h e o l s o n t h e g a s p p i t o k e e p t h l t e r a l p u l l s c o n s t a n t

I n L o m a s o p i n i o n c t i n u o u s t r a c t i o n a c c o m p l i s h a s m u c h i n f r o m f o r t o e i g h t c k

is accomplished by the plaster treatment in six months. The former method is of advantage also from the standpoints of rest and improved hygiene.

After the maximum degree of improvement has been obtained as shown by the X-ray a spinal fusion is done. If the deformity will not permit complete closure fusion is done only on the concave side of the curve the concavity being bridged by a tibial graft.

PAUL C. COLONNA, M.D.

Rollier, A. Heliotherapy in Hip Joint Tuberculosis. *Surg. Gynec. & Obst.* 1918, xlvii, 95.

Rollier states that the cures of tuberculosis obtainable by heliotherapy are distinguished by three principal characteristics: a splendid general condition, development of the musculature and frequently the return of function in diseased joints.

He advocates insolation of the total surface of the integuments because he is of the opinion that the skin is not only an organ of protection but also a very important organ of defense and is able to subserve its physiological functions only when it is placed in direct contact with its natural milieu: air and sun. Not only does the skin play a leading role in the general metabolism but it secretes per day more than 1 liter of sweat containing sebaceous matter and various toxic substances; it is the most important source of immune bodies and it is probably also the most important endocrine organ.

The action of the sun is first of all general; being manifested in the skin, the musculature, the blood, the endocrine organs and the skeleton.

When exposed to the air and sun the skin becomes toned up and pigmented and regains its physiological function. When pigmented and physiologically adapted to heat and cold it resists the penetration of germs. The cicatrization of wounds is thus favored. The pigment serves as a protection against over-irritation by the ultraviolet rays and as a regulator of the heat from the sunlight. In addition, as Rollier's experience indicates, it acts as a kind of accumulator of dynamic forces; the patient's resistance being generally proportionate to his pigmentation. There is increasing evidence that the skin receives, furnishes and reactivates the elements essential for the metabolism of hormones and vitamins and that the majority of the avitaminic conditions are due simply to lack of sunlight.

The action of the sun on the musculature is very remarkable. By dilating the skin capillaries it causes a flow of blood from the depths toward the surface, thus acting as the most perfect massage. The building up of the muscles under the influence of the sun may be attributed doubtless to this more active circulation and also to the continuous reflex tonic action on the muscular fiber arising from the vibratory shock of the radiations on the mesh of sensitive nerve endings in the skin. By restoring the natural tone to the muscles and ligaments the sun cure re-establishes the normal balance of this lever mechanism and thus by an eminently physiological process brings about the return of articular function.

While the general action of heliotherapy can restore to the body undermined by tuberculosis a normal physiological function and a symmetric harmony, its local action is of equal importance in the treatment of tuberculosis of the bones, particularly of the hip. However, a rigorous dosage and strict technique are prime essentials. Rollier has established certain principles of pathology which are applicable to all cases. The dosage must be so graduated that the reactions are never of harmful intensity.

When a patient with hip disease arrives at the Rollier clinic all plaster apparatus is immediately removed. After a few days of repose and acclimatization immobilization and extension are begun. In some cases extension must be applied immediately after the removal of the plaster to combat the pain and a tendency toward dislocation. The patient remains at first in his room with the windows open where he accustoms himself gradually to the altitude. Then if he shows no general reaction attributable to climatic conditions (e.g., a rapid pulse, a subfebrile temperature, nervous irritability, etc.) his bed is rolled out on a balcony to accustom him to the open air. After a period of time depending upon the observations of the doctor (general resistance of the patient, the state of his organs, the presence or absence of secondary infection, elevation of temperature, etc.) the sun cure proper is begun.

The first exposure to the sun is very brief. On the first day the feet are exposed three times for a period of five minutes each with a half hour interval between the exposures. On the second day the feet are exposed for three periods of ten minutes each and the legs up to the knees are exposed for three periods of five minutes each. On the following day the feet are exposed three times for fifteen minutes, the legs up to the knees are exposed three times for ten minutes, and the legs up to the hips are exposed three times for five minutes. On the fourth day the abdomen is exposed to the sun and on the fifth day the thorax is exposed, a damp cloth protecting the precordial region. The upper regions of the body are exposed with great care. During this time the condition of the patient, his temperature and pulse, and particularly the local reactions are carefully observed and at the least sign of intolerance the periods of insolation are shortened or suspended for a while.

To obtain a cure of hip disease with correction of the orthopedic deformity, rational orthopedics must be employed in addition to heliotherapy. Rollier has abandoned the use of the closed plaster apparatus. From the beginning of his work he has considered the wearing of such apparatus contrary to true physiology and orthopedics. He has therefore replaced the fixed plaster shell by orthopedic appliances of great simplicity which allow free access of the sun to the diseased regions, thereby aiding the local defense without hampering the general treatment.

For the orthopedic treatment of hip disease as for that of Pott's disease a correct arrangement of the bed is essential. The mattress should be flat and of hard material which will not form hollows under the pressure of the body. A soft mattress into which the body sinks prevents the normal evaporation of sweat, favors maceration of the skin and the formation of bed sores and may cause a faulty position.

In Rollier's clinic the beds are of metal with an underframe of steel plates. They are fitted with wheels so that they may be rolled onto the galler and are sufficiently high to facilitate the careful control of the position of the pelvis and the extension apparatus and at the same time permit free exposure to the sun. A millet seed cushion is placed in the horizontal mattress to raise the pelvis. This raised position while teaching the patient facilitates perfect position of the coracoclavicular ligament, the scapula and in the prevention of flexion and adduction on deformities of the shoulder. It is the very real advantage when the patient recovers that the clinician can extend the leg on the diseased side is an absolute rule of treatment. Its object is to hold the articular surfaces apart by axial traction in order to prevent friction and adhesion with contact contamination of the opposite surface. The separation of the articular surfaces also decreases the weight of the sun. In order to avoid distention of the knee joint the tension should pull from the thigh.

Because of his conviction that goiter and complete myelitis are an error prejudicial to the organic life of the neck by means of a prolonged course of treatment and individualized work to develop specific resistance of the patient along the hygienic rational stance.

As one of the clinical and roentgenological conditions of the hip joint, moderate myelitis of the whole of the accident the patient is placed in the ventral position of the pelvis of the bath. A edge support cushion is placed under the thorax and another cushion is placed under the feet to prevent excessive traction on the toes. The ventral position does not include the maintenance of extension and has the great advantage of allowing exposure of the entire body and particularly of the thigh region and thus helping the development of the musculature. Often a true muscular regeneration is the result. The quadriceps which so often degenerated to mere trip and the gluteal mass which is completely flattened and inelastic and the effect of posture is a firm and size approaching the normal.

As the circulation becomes more active and intense under the action of the sun and as the integument begins again to participate in the cycle of local metabolism the muscles receive the tone and elasticity and continue to return to a functional function. The turning of the foot is always spontaneous. Rollier therefore allows active passive movements of the joint.

The beginning of movements are seen during treatment and develop *passu* with the progress

of cure but the patient is allowed to try occasional flexion movements only after the X-ray has demonstrated cicatrization of the bone. These movements improve the circulation and strengthen the muscles and the regular repetition helps to restore the mobility of the joint insofar as the anatomical conditions permit.

The treatment of hip disease by heliotherapy is most successful when the lesion is a closed one. In the presence of a cold abscess Rollier is not sorry to aspirate. He waits as long as possible before as long as the abscess does not threaten to open spontaneously. Aspiration is done only when the skin is thinned by the abscess. Rollier attaches importance to cold abscesses because on account of their content of immune bodies they contribute a valuable immunizing factor to the defense of the organism. Aspiration should be carried out at a distance and repeated if necessary to prevent spontaneous opening. The complication of myelitis is not completely overcomes the favorable prognosis of locked hip disease. Rollier therefore insists on conservative treatment of this localization in order that the closed tuberculous lesion may not be transformed into an open one.

In fistulous hip disease good drainage is essential. If the trunk is well drained the sinuses will dry up and the general condition improves.

In describing the processes of bone repair Rollier states that he commonly sees tuberculous cases in full activity with the acetabulum the femoral head and even the neck of the femur showing the signs of extensive melting represented in the film by the well known foamy oblique lines the contours of the joint. In this chaotic area head gradually appears the outlines of which at first confused and cloudy become gradually more precise and regular. The demarcation zone then becomes clearer and the decalcified region becomes the sites of intense recalcification.

In cases in which the femoral head has burst through the seat of the floor of the acetabulum the X-ray films demonstrate reconstruction by stages. A strong projection of rough structure is first laid down. This becomes compact and regular and there is formed a firm and delineated new articular cavity which allows a functional adaptation of the new femoral head.

When once the honey cicatrization is complete clinically and roentgenologically the period of training for the vertical position and for exercise begins. Prudent graduation with the usual precautions is essential. In Rollier's cases at this stage last changes are placed on the legs to prevent abrupt dilatation of the venous network and orthopedic insoles are placed in the shoes to support the plantar arch and prevent flat foot. When the patient begins to walk he is aided by the use of long sticks held at shoulder level so as to expand the chest. Catches are not employed as they have a tendency to deform the spine.

H. EARL CONWELL, M.D.

Wakeley C P G Fibrocystic Disease of the Femora *Proc Roy Soc Med Lond* 1927 vii 67

Wakeley reports a case of fibrocystic disease of the femora in a physician thirty two years of age. The patient stated that at the age of ten years he sustained a fracture of the right femur at the juncture of the upper and middle thirds as the result of a slight trauma. Good union resulted in six weeks. Immediately thereafter he suffered a green stick fracture of the left femur at the juncture of the upper and middle thirds as the result of throwing the weight of his body on the leg. Good union resulted in eight weeks but was associated with angular deformity. At the age of twelve years the patient fractured the left femur in the same region. Good union resulted in eight weeks. At the age of fourteen years he sustained a third fracture in the same region of the left femur. Good union resulted in ten weeks but with marked deformity.

When the patient was seventeen years old the deformity of the left leg was increased and there was marked coxa vara of the right hip. The roentgenogram revealed in the left femur a cyst the size of a hen's egg. An osteotomy was performed and the wall of the cyst scraped. The fluid in the cyst was of a dark color. No growth was obtained on culture.

The following year an osteotomy was performed on the right femur to correct the coxa vara and the deformity of the left femur was also corrected. The bone was found to very soft.

When the patient was twenty five years of age he sustained another fracture in the same region of the left femur as the result of an accident. At the end of five months union was poor and the use of a weight bearing caliper was necessary.

When the patient was twenty nine years of age an osteotomy of the right femur was performed to correct the coxa vara which had recurred. Following this operation a streptococcal osteomyelitis developed but cleared up in three months.

At the present time there is a well marked fibrocystic disease of the upper ends of the femora and the patient is obliged to wear a walking caliper splint on each leg and to use crutches. Following the last osteotomy a culture made from streptococci recovered from the wound was injected. Thereafter some of the cysts appeared to clear up and consolidated. Whether this was due to the vaccine or the protein shock the author is unable to say but he believes it tends to confirm the theory that fibrocystic disease is of inflammatory nature rather than a new bone tumor formation.

NORMAN C BULLOCK M D

Moore C U Rickets of the Lower Extremities Its Relation to Genu Valgum and Static Flat Foot *J B & J Surg* 9 S x 96

Skeletal signs of rickets are most evident at times of rapid growth of the bones that is during the first two years of life and at puberty. These signs are craniotabes in the first six months the rosary

and Harrison's groove in the first year genu valgum or varum in the second year and static flat foot at puberty.

In normal legs the epiphyseal lines of the femur and tibia at the knee are parallel and the knees and inner malleoli touch when the child stands with the feet parallel. When the knee is rachitic the roentgenogram shows cupping or feathering of the epiphysis thinning of the cortex transverse lines of deposited calcium in the diaphysis and an epiphyseal line which is not at a right angle to the shaft. When the epiphyseal line is not at a right angle to the shaft the knee goes inward or outward when weight is borne on the leg depending upon the direction of the slope of the line. In such cases there is also abnormal lateral mobility. This is often the first sign of a rachitic leg.

For the measurement of lateral mobility the author uses an arthrometer which holds the thigh and permits movement of the leg below the knee. When the knee is normal the lateral movement as measured at the heel does not exceed 3 cm. By means of records made with the arthrometer the course of the deformity can be definitely shown without X-ray examination or other expensive procedures. In the case of the ankle such measurements are more difficult and records must be made with roentgenograms.

In cases of flat foot footprints do not always give a reliable idea of the functional condition. A simple test consists in having the child stand on the balls of the feet. If the scaphoid bone is not visible or palpable in this position but becomes prominent when the child comes down on the entire sole functional flat foot is present.

It is commonly thought that children outgrow rachitic deformities but examination of young adults shows that this is not true. Of the first million men examined for service in the Great War the rachitic deformity of flat foot was found in 777 per 1000 an incidence practically as high as that of all other diseases and deformities combined.

There seems to be a hereditary factor in rachitis extending back sometimes three generations. In the experimental production of rachitis it usually takes three generations to produce the disease by diet. In the cases of children who show rachitic signs in spite of careful diet the parents were probably rachitic.

Every effort should be made not only to maintain the child on an antirachitic diet but also to provide heliotherapy and light clothing. More danger is associated with being over clothed than with being under clothed.

WILLIAM A CLARK M D

Henderson M S and Fortin H J Tuberculosis of the Knee Joint in the Adult *J B & J Surg* 1927 1 00

Typhurel and eleven cases of tuberculosis of the knee joint treated surgically are reviewed. The patient's age at the onset of the condition and the operation and the relation of the lesion to tubercu-

retracted because of their laxity they should not be cut. The ligaments and periosteum at the dorsum are divided and dissected from the bones over the radio carpal joint with care not to destroy them.

The sectioning of the bones is done with care. A chisel rather than a saw is used for this purpose. The radius is first sectioned at about the place of its previous epiphyseal cartilage. The ulna is sectioned after the removal of the triangular cartilage. In order to prevent ulnar deviation of the wrist the section through the ulna is made to pass from above and laterally downward and medially. The navicular, lunate and triquetrum are then chiseled and some of the head of the capitate is removed with the navicular and lunate.

The bone ends thus bared are placed in apposition and the periosteum and ligaments which were carefully saved at the beginning of the operation are sutured over the posterior surface. These sutures are very important in maintaining the bones in apposition but to perfect the arthrodesis the extensor tendons are shortened by the method described by Mauclair being drawn downward until the fingers are in extension and held while shortening sutures are introduced.

The skin is then sutured carefully and the hand immobilized with an angle of 20 degrees of extension at the wrist. The cast applied extends from the middle of the forearm down over the palm and fingers. The tips of the fingers are left exposed. This cast is left on for fifty days without change of dressings or other attention.

One case treated by Massart in this way is reported.

GASNE, who read Massart's paper, stated that in cases in which because of the patient's occupation it is necessary to maintain some degree of mobility at the wrist the use of an apparatus gives better results than arthrodesis but when the patient is engaged in heavy manual labor arthrodesis is the better procedure.

TERAIRE called attention to the fact that club hand and other deformities are often treated very successfully by musculotendinous transplants.

MICHAEL L. MASON, M.D.

Gaenslen F. J. Sacro Iliac Arthrodesis Indications, Author's Technique and End Results
J. Am. Med. Ass. 1915, 19, 1555-1563

In an earlier article Gaenslen reported four cases of sacro iliac fusion by a new method. In this article he reviews five others. He states that in both tuberculosis and persistent strain fixation by appliance would be indicated if it could be done efficiently but there is no form of brace or support that will take the place of surgical fixation. In tuberculosis of the sacro iliac joint in adults fixation is justified and indicated as soon as the diagnosis is made. In the treatment of sacro iliac relaxation and strain arthrodesis should be reserved for cases in which the condition is so painful or disabling as to render radical measures imperative.

Gaenslen describes the operative procedure reports end results obtained thereby and calls attention to a diagnostic maneuver which has proved most valuable in the differentiation between sacro iliac and lumbosacral lesions and lesions of the right and left side.

The diagnostic maneuver consists in hyperextension of the hip with fixation of the pelvis and lumbar spine. The patient lying supine flexes the knee and hip of the same side acutely crowding the thigh against the abdomen by clasping his hands about the flexed knee. This brings the lumbar spine firmly in contact with the table and fixes both the pelvis and the lumbar spine. The patient is then brought well to the side of the table and the opposite thigh is slowly hyperextended by the examiner with gradually increasing force by pressure of the hand on the top of the knee. With the opposite hand the examiner assists the patient in fixing the lumbar spine and pelvis by pressure over the patient's clasped hands. The hyperextension of the hip exerts a rotating force on the corresponding half of the pelvis in the sagittal plane through the transverse axis of the sacro iliac joint. The pull is made on the ilium through the Y ligament and the muscles attached to the anterior superior and anterior inferior spines. As a result of the impairment of ligamentous support on the diseased side this rotating force causes abnormal mobility accompanied by pain either local or referred on the side of the lesion.

In describing the technique for arthrodesis Gaenslen states that the patient should lie in the semiprone position. In the cases of stout and short-aided persons it is well to have the table raised in the center with the peak in the flank as in kidney operations. This brings out the crest prominently. If the table is not so raised and the patient has large hips the semiprone position produces a postural lumbar scoliosis and a crowding of the iliac crest against the costal margin so that palpation even of the iliac crest may be difficult. Before preparation of the skin it is well to mark the location of the posterior superior and posterior inferior spines for proper placement of the skin incision. Especially in the cases of stout subjects this procedure is distinctly superior to the location of landmarks by palpation of the sterilized and draped field. The posterior inferior spine usually is not palpable through the soft parts. It lies about 1 1/2 in. below the posterior superior spine on a line connecting the latter point with the trochanter.

The first incision is made along the posterior two thirds of the iliac crest curving around behind the posterior superior spine and ending over the posterior inferior spine of the ilium. This rather large incision which extends through skin and subcutaneous fat to the deep fascia is necessary to allow in a later step a proper reflection of the flap of bone and soft parts for the intra-articular work. The wound margins should be freed and retracted so as to expose the crest to the posterior superior spine.

An incision is then made over the posterior third of the crest and over the posterior superior spine a

In the early years of the War the treatment of compound fractures was attended by a high mortality because of lack of organization and equipment in the hospital. This led to segregation of fractures and popularization of the Thomas splint.

Bristow believes that every student should be thoroughly trained in the use of the Thomas splint especially as an emergency splint.

BLAKE summarizes the advantages of traction and suspension as follows:

1. No reduction is necessary.
2. No anesthesia is needed.
3. The limb is open for physiotherapy repair being thereby hastened.
4. Movement in neighboring articulations is permitted.

5. Traction has an efficient mobilization effect because of the confining action of the stretched muscles.

Reduction should be obtained as soon as possible. Common mistakes in the treatment of fractures are the use of insufficient traction and delay of reduction for several days.

Blake has been able to reduce nearly all diaphyseal fractures of the femur and humerus by traction and suspension. In the few cases in which reduction by traction was prevented by the interposition of muscle, open reduction was done.

SEED states that the diagnosis of fracture of the femur should be made at the site of the accident and the treatment should be begun immediately. By early fixation shock and tissue trauma are greatly reduced. Speed outlines recognized operative and non operative methods of treating fractures of the femur.

R. L. SOTO HALL, M.D.

Moore, B. H. The Mechanical Action of the Periosteum in Fresh Fractures. *J. Bone & Joint Surg.* 9:28 x 8.

The periosteum of young bones has three layers—an outer layer of interlacing fibrous bundles, a middle or fibro elastic layer, and an inner layer of fine connective tissue bundles—between which there are blood vessels and osteoclastic cells. In the periosteum of adult bone the middle and inner layers are fused into one layer containing elastic tissue.

The author's studies of the action of the periosteum in fractures were made on the leg bones of calves less than an hour after their removal from the living animal. The skin and tendons were removed but the periosteum was left intact. The bones were fractured by impact.

When the bone was fractured transversely the periosteum on the side opposite the breaking force was always torn. The tear was transverse to the long axis of the bone and only slightly separated from the bone. Occasionally a longitudinal tear occurred from the ends of the transverse tear.

Reduction of an overriding deformity by hand with direct traction in the line of the long axis of the bone was very difficult. In fact the greater the

traction the tighter the ends became locked together in the deformed position. If the edges of the fracture on the side next to the intact periosteum were placed together by bending the bone with the fragments at an angle the fracture could be reduced by simply straightening the bone. The periosteum then held the fragments like an elastic splint.

Oblique fractures caused no tear or only a small longitudinal slit in the periosteum at either end of the fracture. The periosteum could be stripped from the bone along the line of the fracture. Because of the splint like action of the periosteum very little deformity occurred in this type of fracture. Shortening of the bone of from 4 to 5 in. was constant and a pull of from 30 to 40 lb. applied directly to the bone was necessary to restore the original length.

In determining the elasticity of the periosteum experiments were made on a strip 6 in. long and 1/4 in. wide. It was found that a pull of 6 lb. produced 1/4 in. of lengthening and a pull of 15 lb. produced 1/2 in. of lengthening. In the treatment of fractures the pull is probably applied to a much shorter strip of periosteum and the limit of elasticity is reached much more quickly.

The author concludes that in transverse fractures the elastic pull of the periosteum is an additional factor producing angular and overriding deformity. The periosteum tends to lock overriding fragments by its mechanical action under direct traction and to cause angular deformity by its elastic action if the reduction is not anatomically perfect. When an anatomically perfect reduction is obtained the elastic action of the periosteum tends to maintain it. Therefore in the treatment of fractures it is advisable to use manipulations which will take advantage of these properties of the periosteum.

NORMAN C. BULLOCK, M.D.

Dahl Iversen, E. The Frequency and Duration of Osteitic Processes After Osteosynthesis (274 Cases) and a Follow Up Study of 66 Cases of Fracture Treated by Operation (Ueber die Häufigkeit und Dauer der Prozesse nach Osteosynthese (24 Fälle) mit Nachuntersuchung von 66 Fällen operativ behandelten Knochenbrüchen). *Hosp. Tid.* 19:71 449 49.

The author gives a detailed statistical report on 274 cases of osteosynthesis performed by different methods. Osteitic processes were present in from 15 to 28 per cent of the uncomplicated fractures and 50 per cent of those with complications. Pseudarthroses were present in from 3 to 4 per cent of the cases. The osteitic process became cured in the first four months after the removal of the foreign body in 53 per cent of the cases, within a year in 80 per cent and in from one to three years in 20 per cent.

In the author's opinion the most favorable time for osteosynthesis is the first week after the occurrence of the fracture. Prostheses which have remained in place for six months without causing complications may be permitted to remain since the occurrence of complications is not to be feared after

In the early years of the War the treatment of compound fractures was attended by a high mortality because of lack of organization and equipment in the hospitals. This led to segregation of fractures and popularization of the Thomas splint.

Bristow believes that every student should be thoroughly trained in the use of the Thomas splint especially as an emergency splint.

BLAKE summarizes the advantages of traction and suspension as follows:

- 1 No reduction is necessary
No anesthesia is needed
- 3 The limb is open for physiotherapy repair being thereby hastened
- 4 Movement in neighboring articulations is permitted
- 5 Traction has an efficient mobilization effect because of the confining action of the stretched muscles

Reduction should be obtained as soon as possible. Common mistakes in the treatment of fractures are the use of insufficient traction and delay of reduction for several days.

Blake has been able to reduce nearly all diaphyseal fractures of the femur and humerus by traction and suspension. In the few cases in which reduction by traction was prevented by the interposition of muscle, open reduction was done.

SPEED states that the diagnosis of fracture of the femur should be made at the site of the accident and the treatment should be begun immediately. By early fixation shock and tissue trauma are greatly reduced. Speed outlines recognized operative and non operative methods of treating fractures of the femur.

PALMER SOTO HALL M.D.

Moore B. H. The Mechanical Action of the Periosteum in Fresh Fractures. *J. Bone & Joint S. Surg.* 1928; 10: 8 x 78.

The periosteum of young bones has three layers—an outer layer of interlacing fibrous bundles, a middle or fibro-elastic layer, and an inner layer of fine connective tissue bundles—between which there are blood vessels and osteoclastic cells. In the periosteum of adult bone the middle and inner layers are fused into one layer containing elastic tissue.

The author's studies of the action of the periosteum in fractures were made on the leg bones of calves less than an hour after their removal from the living animal. The skin and tendons were removed, but the periosteum was left intact. The bones were fractured by impact.

When the bone was fractured transversely, the periosteum on the side opposite the breaking force was always torn. The tear was transverse to the long axis of the bone and only slightly separated from the bone. Occasionally a longitudinal tear occurred from the ends of the transverse tear.

Reduction of an overriding deformity by hand with direct traction in the line of the long axis of the bone was very difficult. In fact the greater the

traction the tighter the ends became locked together in the deformed position. If the edges of the fracture on the side next to the intact periosteum were placed together by bending the bone with the fragments at an angle, the fracture could be reduced by simply straightening the bone. The periosteum then held the fragments like an elastic splint.

Oblique fractures caused no tear or only a small longitudinal slit in the periosteum at either end of the fracture. The periosteum could be stripped from the bone along the line of the fracture. Because of the splint like action of the periosteum, very little deformity occurred in this type of fracture. Shortening of the bone of from $\frac{1}{4}$ to $\frac{1}{2}$ in. was constant and a pull of from 30 to 40 lb. applied directly to the bone was necessary to restore the original length.

In determining the elasticity of the periosteum experiments were made on a strip 6 in. long and $\frac{1}{4}$ in. wide. It was found that a pull of 6 lb. produced $\frac{1}{4}$ in. of lengthening and a pull of 15 lb. produced $\frac{1}{2}$ in. of lengthening. In the treatment of fractures the pull is probably applied to a much shorter strip of periosteum and the limit of elasticity is reached much more quickly.

The author concludes that in transverse fractures the elastic pull of the periosteum is an additional factor producing angular and overriding deformity. The periosteum tends to lock overriding fragments by its mechanical action under direct traction and to cause angular deformity by its elastic action if the reduction is not anatomically perfect. When an anatomically perfect reduction is obtained the elastic action of the periosteum tends to maintain it. Therefore in the treatment of fractures it is advisable to use manipulations which will take advantage of these properties of the periosteum.

NORMAN C. BULLOCK M.D.

Dahl Iversen E. The Frequency and Duration of Osteitic Processes After Osteosynthesis (274 Cases) and a Follow Up Study of 66 Cases of Fracture Treated by Operation (Ueber die Häufigkeit und Dauer der Prozesse nach Osteosynthese (274 Fälle) mit Nachuntersuchung an 66 Fällen operativ behandelten Knochenbrüchen). *Hosp. Tidn.* 1927; 1: 449-459.

The author gives a detailed statistical report on 274 cases of osteosynthesis performed by different methods. Osteitic processes were present in from 15 to 28 per cent of the uncomplicated fractures and 50 per cent of those with complications. Pseudarthroses were present in from 3 to 4 per cent of the cases. The osteitic process became cured in the first four months after the removal of the foreign body in 53 per cent of the cases, within a year in 80 per cent and in from one to three years in 20 per cent.

In the author's opinion the most favorable time for osteosynthesis is the first week after the occurrence of the fracture. Prostheses which have remained in place for six months without causing complications may be permitted to remain since the occurrence of complications is not to be feared after

that length of time. A good end result may be expected 85 per cent of the cases in which the prosthesis is not a cause of complication. Lutz (Z)

Cotton F J The Technique in the Use of Grafts in Cases of Non-Union of the Femur J Bone Jt Surg 1935 9: 93-94

Cotton has abandoned the use of the massive graft in cases of non-union because it does not offer enough blood supply for regeneration. The center of the graft dies and only the surface forms a new bone. To obtain a much smoother surface a possible he now employs chips from a autogenous graft obtained from the iliac crest. The proximal end of the tibia is fragmented at the site of non-union and the fragments are pinned up by angulation to form a space for the graft chips. After the chips have been put in the fragments are straightened again. The hip is kept in a brace between them. Over the surface the leg is fixed with plaster. The author's method has been followed by only three surgeons and the successful result has been in none of them. It is employed by Cotton in the treatment of W. A. C. M.D.

Milner H D Location of the Humerus in the Radial Shaft Fracture. Operative Procedure J Bone Jt Surg 1935 9: 89

Milner suggests that in this article a analogy to the fracture of the humerus is drawn from the fracture of the radius. It is essentially a reduction of the humeral ligament.

The author's method is to expose the fracture through a T-shaped incision. The fracture is then reduced by the use of a small drill hole made through the bone. The drill hole is made through the bone and a strip of fascia is placed over the hole. The hole is then closed with a suture. The author's method is to expose the fracture through a T-shaped incision. The fracture is then reduced by the use of a small drill hole made through the bone. The drill hole is made through the bone and a strip of fascia is placed over the hole. The hole is then closed with a suture. The author's method is to expose the fracture through a T-shaped incision. The fracture is then reduced by the use of a small drill hole made through the bone. The drill hole is made through the bone and a strip of fascia is placed over the hole. The hole is then closed with a suture.

Putti V E Lytton F Congenital Dislocation of the Hip (P. 1) p. 111-112 1935 9: 111-112

A congenital dislocation of the hip is not treated until the child is about one year old. The

treatment is delayed because of the belief that the anatomical and mechanical conditions for reduction are better after the second year of age. The dislocation cannot be diagnosed before the child can walk and that a cast cannot be applied before the child has learned to walk.

The author is of the opinion that the treatment should be given earlier while the parts are so plastic as possible. He says that a dislocation can be suspected from slight asymmetry which the mother herself may note. He says that when it is once suspected it can be confirmed by roentgen examination. During the first few months of life the parts are so plastic that the usual manipulations for reduction and the application of a plaster cast are unnecessary. Abduction of from 40 to 60 degrees is sufficient to bring the neck of the epiphyseal center of the femur into the center of the acetabulum. If the limb is then kept in sufficient abduction reduction will take place.

To maintain such abduction the child may be kept seated on a wedge-shaped cushion that spreads the legs sufficiently and is removed only when the child is clean. The author uses an adjustable apparatus which he has devised. He makes a roentgenogram of the hip every two months in order to determine the progress that is being made and whether any adjustment of the apparatus is necessary. He has employed this method in ten cases. In four of them a cure was obtained in from six to fourteen months. Roentgenograms of these cured cases are included in the article. The six other cases are still under treatment. A. DRE G. M. O. M.D.

Moo G A A Fixed Plaster Spica Cast for Hip Fractures J Bone Jt Surg 1935 9: 12-13

The author of the literature shows that the opinion of most surgeons the best treatment for a fracture of the neck of the femur is the closed method. Since his report in 1921 of forty-two cases in which the fixed spica was used, Moore has had continued success with this procedure.

Under spinal or general anesthesia the hip is manipulated to separate the fragments. The lower extremity is then subjected to lateral and ligamentous traction and forcibly rotated. After the position has been verified with the X-ray, the knees are fixed to a right angle. The internal rotation is maintained and the thighs are then abducted as far as possible and a spica is applied from the navel to the toe with reinforcement to the buttocks and in the groin.

The patient is allowed to sit up on the second day. Flexion of the hip stretches the gluteus maximus and medius and forms a supporting hammock for the greater trochanter. W. P. Brown M.D.

Finzi O Isolated Fracture of the Lesser Trochanter (S. 1) p. 111-112 1935 9: 111-112

To the twenty-three cases of isolated fracture of the lesser trochanter which have been reported in

the literature the author adds a case of such a fracture in a man twenty nine years of age. These fractures occur most commonly in adolescents either because young persons are more addicted to gymnastic exercises than adults or because fusion of the lesser trochanter with the femur does not take place until about the eighteenth year of age. In old persons such fractures may occur as the result of osteoporosis from involution.

In a few cases the fracture is caused by direct trauma but in the majority it is due to (1) more or less violent contraction of the iliopsoas muscle not accompanied by relaxation of the contracted antagonistic muscles or the reverse (2) lack of coordination of movements (3) a rapid defense contraction which does not give the nerve centers time to bring about relaxation of the antagonistic muscles or (4) as in the author's case fatigue of such degree as to bring about a state of contracture of the antagonistic muscles so that the force of the two antagonist becomes greater than the resistance of the lesser trochanter.

Generally only one fragment is broken off but in some cases the fracture is of the comminuted type the displacement of the fragments following the line of action of the iliopsoas muscle upward and a little forward and inward.

The symptoms vary in intensity but as a rule are sufficiently characteristic for a clinical diagnosis to be made with considerable certainty. However the findings of the physical examination should be confirmed by roentgen examination. The chief signs of the fracture are a lack of deformity with shortening of the limb and pain on pressure in the region of the iliopsoas muscle. Ludloff's sign Schuelein's pain on extension of the limb and a swelling which is movable on extension.

In the treatment the fragments should be replaced following the line of action of the iliopsoas by placing the limb in flexion external rotation and slight abduction massage and exercise are indicated to facilitate the absorption of extravasations and favor callus.

AUDREY G. MORGAN, M.D.

Loefberg, O. The Treatment of Fractures of the Neck of the Femur. 389 Cases on the Surgical Service of the Municipal Hospital of Malmö (Behandling der Fractura collis femoris 389 fälle i den kirurgiska Afdelningen af det städtiska Sjukhuset i Malmö) *Cent. bl. f. Chir.* 1927 li 22.

In the author's cases of fracture of the neck of the femur reduction is attempted as soon as possible. In the majority of cases reduction and fixation in a plaster cast can be done following the injection of 1/2 cgm of morphine. Reduction is always effected manually. It is nearly always possible to drive the fragments into one another by a blow of the fist on the great trochanter while the other side of the pelvis is supported. A plaster cast is applied after padding with cotton. The foot is left free. The period of fixation is usually eight weeks for medial fractures

and sometimes a little less for fractures of the lateral type. A case which came to autopsy showed that wedging of the fragments requires not only reduction but manual wedging.

Of the fractures reviewed 67.5 per cent were medial fractures and the rest lateral fractures. Bony union occurred in all of the lateral fractures but in only 67.5 per cent of the medial fractures. Medial fractures should be reduced and fixed with the leg in inward rotation and abduction. Of the lateral fractures those due to torsion should be reduced with the leg in inward rotation and abduction. Splinter fractures should be reduced with the leg in abduction and a middle position and fractures at the angle should be reduced with the leg in maximal abduction.

After the removal of the plaster cast the patient should remain in bed until he is able to raise his leg with the knee extended. Passive movements are contraindicated; only active movements should be permitted. Pseudarthroses in young patients in good general condition should be operated upon if they cause pain and functional disturbance.

VALENTIN (Z)

Albee, F. H. Late End Results in Ununited Fracture of the Neck of the Femur Treated by the Bone Peg or the Reconstruction Operation. *J. Bone & Joint Surg.* 9: 8, 124.

Albee reviews the end results obtained in thirty-six cases of ununited fracture of the neck of the femur in which an autogenous bone peg was used and forty-four cases in which his arthroplastic reconstruction operation was performed. He believes that if weight bearing upon an ununited fracture could always be prevented, bone pegging could be successfully applied more frequently.

In the cases reviewed the result was considered excellent when there was nearly normal mobility with normal stability; the use of a crutch or cane was unnecessary and the patient was able to carry on strenuous activities and walk several miles without pain or fatigue.

The result was considered good when mobility was nearly normal; stability was normal; the use of a crane or crutch was unnecessary; and the patient was able to carry on his usual activities without pain or fatigue.

The result was regarded as fair when the patient was obliged to use a cane and experienced slight pain or fatigue.

It was regarded as poor when the use of a crutch was necessary and activity was associated with considerable pain and fatigue.

An excellent result was obtained in 90 per cent of the cases treated by bone pegging and in 75 per cent of those in which the reconstruction operation was done.

Most of the patients were under fifty years of age. The length of time that had elapsed since the operation ranged from a few months to fifteen years.

The article describes postoperative roentgenograms of five cases treated with the autogenous bone peg and the cases treated with the reconstruction operation.
P. C. C. LONN, M.D.

Lehman E. P. and Eskels I. H. Fracture of the Talus with Note on the Mechanism of Injury.
J. B. & J. 15, 5, 98, 8.

Lehman and Eskels report a case of fracture of the talus scaphoid from direct violence and discuss the mechanism producing this type of fracture. They believe that such fracture is not probable without a ligamentous tear. Applicable mechanism is (1) forced flexion of the foot with a violent twist of the distal caprodocum of the ligament (2) transmission of the force with a twist of the foot during the scapholagral distal sharp flexion of the medial angle of the medial cuneiform.
P. C. C. LONN, M.D.

Wilson P. D. The Treatment of Fractures of the Os Calcis by Arthrodese of the Subtalar Joint. A Report on Twenty Six Cases.
J. A. M. 19, 1, 2, 676.

Fractures of the os calcis constitute a present of all fractures and cause disability in from 30 to 80 percent of the cases. They are most common in males. In recent cases reported by Cahill the average age of the patients is forty years. The injury is most frequent in the elderly, such as sustained in a fall on the heel. The treatment is primarily the stabilization of the position of the calcaneal articular fragment.

The most common types of fractures of the os calcis are the fissured and the comminuted. As a rule the articular fracture lines—one passing through the constricted portion just behind the articular facet dorsally and forward and the other beginning on the outer side in front of the anterior margin of the posterior articular facet running downward and forward through the insertion of the articular surface and emerging on the medial side posterior to the base of the sustentaculum.

The twenty six cases reported by the author were treated by arthrodese of the subtalar joint and proved that has been employed with good results by Hoke, France, Hobbs, Conn, Allis, and Reid. In addition to the arthrodese the treatment included supplementary measures such as debridement, lengthening, excision of callus, and removal of loose fragments or excision of bone. The injury to the calcaneal articular joint is an important factor in the production of the pain and disability. Arthrodese of the joint has invariably found gross pathological changes. Recent fracture showed comminution of the articular cartilage with displacement of fragments and an organized blood clot in the joint. All of the fractures showed pannus formation.

The procedure is performed through a lateral incision. The excision of the subtalar facets between the sole and the astragalus is removed. In recent fracture, Wilson attempts to correct the deformity by an old-fashioned scoops out the lateral facet of the calcis and elevates beneath the talus malleolus.
A. F. S. M.D.

BIBLIOGRAPHY of CURRENT LITERATURE

NOTE—THE BOLD FACE FIGURES IN BRACKETS AT THE RIGHT OF A REFERENCE INDICATE THE PAGE OF THIS ISSUE ON WHICH AN ABSTRACT OF THE ARTICLE REFERRED TO MAY BE FOUND

SURGERY OF THE HEAD AND NECK

Head

The systematic classification and significance of pre-mature ossification of the skull **V. MATERNA** Beitr z klin Chir 19 7 cvl 358

A case of fracture of the skull followed by the presence of air in the cranial cavity **P. D. MOTTERSOLF** Brit J Surg 1928 vi 514

Sinus ptericanus (reducible blood tumor of the cranium) its origin and its relation to hemangioma and abnormal arteriovenous communication on report of a case **E. V. HARRIS** Arch Surg 1928 cvi 31 [356]

Osteoma of the sphenoid bone producing unilateral exophthalmos **W. L. BENEDICT** Surg Clin N Am 1927 vi 1501

Acute parotitis **E. A. BAUMGARTNER** Clifton M Bull Clifton Sp in S N Y Rk 19 8 xiv 4

Mixed tumors of the face **P. MOULONGUET** and **A. PEYNET** Ann anat path 1927 i 957 [356]

Removal of a tumor of the cheek and temporal region with a secondary plastic operation **G. B. NEW** Surg Clin N Am 1927 vii 4/9

Sarcoma of the cheek **J. B. OLDHAM** Lancet 1928 cc iv 28

The treatment of cancer of the face by radium **A. LASSUEUR** Pe méd de la Suisse Rom 19 7 xlvii 92

The treatment of tumors of the jaw histology and growth **W. MEYER** Zentralbl f Chir 192 liv 2720

Acute osteomyelitis of the superior maxilla in young infants **M. H. BASS** Am J Dis Child 1928 xvi 6 [356]

Pecurran unilateral luxation of the lower jaw cut down and reduction of the meniscus **A. COSMIER** and **J. MURARD** Bull et mém Soc nat de chir 1927 lvi 1271

Regeneration of a large portion of the lower jaw bone secondary to acute osteomyelitis **G. B. NEW** Surg Clin N Am 19 7 vii 14 9

Bone graft from the crest of the ilium for reconstruction of the ascending ramus and two thirds of the lower jaw bone **G. B. NEW** Surg Clin N Am 19 7 vii 14 9

Some points upon haclip and cleft palate operations **B. B. CARES** Internat J Med & Surg 1928 vi 8

An epithelial flap from the forehead to reconstruct the lower lip and cheek **G. B. NEW** Surg Clin N Am 19 7 vii 14 9

Infection of the anula vein in infections of the upper lip **C. A. KOEDER** J Am M Ass 1928 c 272

Intraoral clancle **L. B. CLARKE** J Roy Army Med Corps Lond 1928 l 49

Salivary stones (sialolithiasis) and their relation to parotid and ductal actinomycosis of the salivary glands **G. SÖDERLUND** Zentralbl f Chir 1927 l 253

A case of salivary calculus **H. L. BROOKS** J Am M Ass 19 8 xc 93

Lithiasis of the submaxillary gland **R. ENRQUEZ** C. BERGARA and **I. BERGARA** Re de especialidades 19 ii 561

A case of submaxillary calculus **M. UMAR** Indian M Gaz 19 8 lxxii 2

The reactions of the salivary gland to roentgen rays **E. T. LEDDY** Surg Clin N Am 1927 vi 609

Eye

Ophthalmology and general medicine **B. H. M. J.** 19 8 i 56

The relation of the ophthalmologist to the general medical profession **C. M. MILLER** South M J 19 8 xvi 40

An ophthalmological clinic in Paris **G. O. RING** Am J Ophth 19 8 xi 35 35

Half examinations of the eye **E. JACKSON** South M J 19 8 x 6

Comparative chemical studies of the ocular fluids of the cerebrospinal fluid and of the blood **M. COHEN** J. KILLIAN and **M. KAMNER** Arch Ophth 19 8 lvi 50 [357]

Eye strain as a cause of headache **J. F. DUNN** Kentucky M J 1928 xxvi 42

Necessity for correcting remediable eye defects in school children **W. H. WILDER** Am J Ophth 1928 xi 35 28

Eye examination a factor in the reduction of industrial accidents **J. W. BREWSTER** U S Naval M Bull 19 8 xvi 69

A consideration of certain aspects of vertigo from an ophthalmological standpoint **C. L. OPPLIGARD** Minnesota Med 1928 i 39

Head tilt and turning of ocular orbit in **J. W. WHITE** Am J Surg 19 8 iv 77

A case of endoculor foreign bodies permeable to the X-ray **P. SATANOWSKY** Rev de especialidades 1927 ii 836

India rubber in the anterior chamber description of an anterior chamber irrigator **W. B. DOHERTY** Am J Ophth 19 8 vi 35 16

Acid and alkali burns of the eye **K. W. COSGROVE** and **W. B. HUBBARD** Ann Surg 1928 lxxviii 89 [357]

Focal infection and elective localization in the pathogenesis of diseases of the eye **E. C. ROSENOW** Ann Otol Rhinol & Larynx 1927 xxxvi 833 [357]

Vaccine therapy in ophthalmology **M. TELLIERES** Bruxelles méd 19 7 lviii 129

A case of sympathetic ophthalmia of six years **S. H. MCKEE** Canadian M Ass J 19 8 lxxvi 59

Diphtheria antitoxin in large doses for sympathetic ophthalmia **E. B. HICKEL** Arch Ophth 19 8 lvi 54

Clinical aspects of ocular tuberculois **W. H. WILMER** Arch Ophth 1928 lvi 1 [358]

Th of t b c l c l t b c l s s C K r n g
Oh t t M J 9 8
I t u j c t s o f m c h m p p t
y d t n J N D G G A N A m J O p h t h 9 8
35 39
Oc l l d r y t p t l l y s o
c l l d l t p t r i s n t S k c e e c L R A T
R a s g t d l n e t r a p 9 608
A p t h l l H D l m A m J O p h t h 9 8
v i 3 44
L o c l a s t h p h t h l m g y C S O B
J A m J A 9 8
F l d n d v F F R G L S B t M J
9 8 4
I t r p t t f p a t h l g v C l I p m t r y t
l t t h t t J N L v M d C l N A m
9 8 43
P m r y p m f t h p b l q e m l M I
B v e l A m J O p h t h 9 8
S q t d b y h t K R S T H L t
9 8
A f m y t h h p t d l p t l y
H m t h d H B r t J O p h t h 9 8 3
W b t p r a t f t p f t h p p l d A
M A R E B t J O p h t h 9 8
M l m a f t h l d A M C L L A N P o R v
S M d L o d 9 8
A f m l p h t d t t v p l
h r p H B A d r N T d J S l z v
B l l J h H p k H p B l t 9 8 l
Th p t h l g l t m y l t h m E A o c t e
B l t d e l l q 9 89
S p h i t a l t s f t h j u c t E L G R
A m J O p h t h 9 8 3 4
B m p v f t h p l p b l t M D u
s e K d p e c l d d 9 8
C j t k m l p n t h l t h 9 8
J t B k N A R A R p n d M G 9 8
L A n j t t w t h f l l t d d p t h v
M D L D B l n t d l l 9 3
P n d j t t J C M t P R y
S o M d L o d 9 8 4
C n j t l d f t a t b m n j t
N N R l d M G 9 8 l
S h a m h f m t h j t t f l
f l l w t t l a t f l t e l t J G l
H E B t J O p h t h 9 8 33
Th t l b t l y d m u l t f m v p h t
t e o p r i t t R C t A M C F t
C f f l O e R S o c d m d
t m y S d t l 9 7 35
P n t h l m f t h b t R W B L E E A m J
O p h t h 9 8 3 [359]
G l m W T D i s v g n M M t h 9 8
l 6 8
Th a l u f t m t r y t h d a g d t t m t
f g l m A H T u s v k s t t M J
9 8 4
S l p t i t m y t l p t g l m
J W J e f v A m J O p h t h 9 8 3
A p l m r y p t f t h f k r a t F
T o o l l D R v A h O p h t h 9 8 l
[358]
C j t p l a t y n t a l f l e c t J
G e v A m J O p h t h 9 8 3
R t l a p t f t h m A C P R y
S o M d L o d 9 8 4
A l l h l p h m o c m g f
t H S G R A L E A m J O p h t h 9 8 u 3 43

Th p p i c t I h t b d t h m y n d y d t
O G M o r g n d f D H o r r P e R y S M d
L o d 9 8 4 4
Th t m t f c e f y l t f l l m l
a t a r a c t e t G H B R M C d M A
J 9 8 63
I d t P v M d I h r a 9 7 439
Th r y t l h l y t m J O M c R v o l d s J A m
M A 9 8 3
A g t a l d l c t f b t h l s t e a t d b y
d t m y A C H u o P l v S M d L o d
9 8 4
l t p t H H T a o v A h O p h t h 9 8
l 38
l p t n w m t h d f t h e p p t f b t
y t h l l B u a y n d A C W s A h O p h t h
9 8 l
C t a t M S w G y H p R p L o d 9 8
k 4
T w f t l t t t h p t b
r p t f t h l l f H A P R y s c
M d L d r 8 4 5
S l t t m t j l d A l t m t J L
M c C A t h s t M d 9 8 4
N p t t m t t f t m t h p t
l t g t m t Z H E A h O p h t h 9 8
[358]
l 40
C t p t p f r m d p i t t t h r 8
b d l W B l l J l w S t t M S 9 8
P h t p h y f t h f l f t h y J L j o p f
R d p e c l d d 9 27 7
F d h t n s l a d i p h t J
t h b t n W B L R B t M A S J
9 8
S o m 346
n t m l f d R K E C n d M A s J
9 8
R t t p t a t l b i S e s A m J
O p h t h 9 8 3 4 [359]
R t t t h m d t L W J z A m J
O p h t h 9 8 3 [359]
H d t r y d t f t h m u l R A o v
d E A R E A h g t d r l 9 7 5
T w f m l d 6 4
R v S M d L o d 9 8 4
O p t t d p h n d l t i A C R W a l
v l b t M J 9 8 3
H e m h g p t n t l t t f d t l z
A t l d m d 9 4 8
Th t l y d g d p f p t
J A P r B t M J 9 7 961 [359]
Th m l t f p t t H R E B t
M J 9 7 1866 [359]
O p t t d t d g s A J B L v [359]
B r t M J 9 869

Ea

F l p s l f t d p t t e a t m t O
I f s d R C I E R B l t d l l q
t o 9 7
Th b l m t b l m n t h l y h l l p t h l
y l C R m e f L a t A m 9 7 60
A f g t d y t h f t h t y W P
K E v B t M J 9 8 4
S q m c l l d m f l f t t m l f t r y
m t T B J P l y S o c M d l d
9 8 391
F t l m t f f h e a d e f m t m d t h
e d t f t h d f I S e c v A h O t o
l a y l 9 8 60

A new test for hearing in the newborn the conditioned reflex C A ALDRICH *Am J Dis Child* 1928 xxxv 36
 An unusual type of diplacusis D MACFARLAN *Arch Otolaryngol* 1928 vii 41
 Otosclerosis G J JENKINS *J Laryngol & Otol* 1928 xliii 7

A national investigation of otosclerosis J S FRASER *Proc Roy Soc Med Lond* 1928 xvi 387 [361]
 Otosclerosis its clinical aspect I R NAGER *J Laryngol & Otol* 1928 xliii 5
 Otosclerosis its treatment A A GRAY *J Laryngol & Otol* 1928 xliii 11

Otomycosis A G FORT *J Med Ass Georgia* 1928 viii 8
 Report of a case of otomycosis F I WILSON *Nebraska State M J* 1928 viii 21

Otorhinolaryngopathology of hepatobiliary type A DI CORE *Rasse a inter az di clin e terap* 1927 viii 721
 The results of stomatotherapy in the acute affections of the middle ear and its adjoining cavities A FRANCHINI and F RICCITELLI *Semana med* 1928 vii 38

A diagrammatic presentation of a noteworthy case of Gradenigo's syndrome D A CROW *J Laryngol & Otol* 1928 xliii 42

A case of Gradenigo's syndrome E S B HAMILTON and J A KERR *J Laryngol & Otol* 1928 xliii 43

Three cases of chronic suppurative otitis media on the right side of motor drivers R J CANN and T B LAYTON *Proc Roy Soc Med Lond* 1928 xvi 39

General sepsis of otitic origin treatment by blood transfusion and germicidal dye H I LILLIE *Arch Otolaryngol* 1928 vii 30 [361]

A case of attic cholesteatoma with vertigo ossiclectomy relief Str J DUNDAS-GRANT *Proc Roy Soc Med Lond* 1928 xvi 392

Left diffuse serous labyrinthitis secondary to acute suppurative otitis media and labyrinthitis of the right ear due to a luetic labyrinthitis A TARASIO *Rev de especialidades* 1927 vi 604

Isolated vestibular neuritis in the course of an acquired lues D MASSA *Pev de especialidades* 1927 vi 60

Acute occult mastoiditis at ten weeks H B SILVER *Laryngoscope* 1928 xxxviii 45

The pathology of mastoiditis in infants B J Mc MAHON *Arch Otolaryngol* 1928 vii 13

The effect of obscure mastoiditis upon nutrition in infancy S W CLAUSEN *N York State M J* 1928 xviii 23

Lessons from cases of mastoiditis in infants A P PERA *South M & S* 1928 xc 26

A case of advanced lateral mastoiditis with very slight middle ear evidence A L USTET *Laryngoscope* 1928 xxxv 20

Three cases illustrating indications for Wilde's incision *Proc Roy Soc Med Lond* 1928 xvi 395

A series of consecutive operations on the mastoid J A GIBB *Brt M J* 1928 i 49

Necrosis of the mental wall following a mastoid operation during scarlet fever *Proc Roy Soc Med Lond* 1928 x 396

Enterotracheal therapy in otitis laryngitis M CHEVAL *Bruxelles med* 1928 viii 14

Nose and Sinuses

Plastic and reconstructive procedures in rhinology J W MANNING *N York State M J* 1928 xxxv 6

Progress in diseases of the nose throat and ear—1927 L SCHWARTZ JR W H AYRES and H HAYS *Med Times* 1928 lvi 23

The functional examination of the varying sensibility of the nasal mucosa S BAGLIONI *Riforma med* 1927 xliii 1154

Some observations concerning so-called nasal catarrh T QUATTILLO *J S with Carolina M Ass* 1928 xxiv 7

Differential chemobiological characteristics of the normal nasal mucus and of that in patients with ozona C A TORRICIANI *Rassegna internaz di clin e terap* 1927 viii 712

Dysosmia dysgeusia and allied disturbances from a clinical viewpoint G BILANCIONI *Riforma med* 1927 xliii 1155

The diagnostic value of X-rays in rhinology C M LADIE *Med J Australia* 1928 i 6

The value of iodine in nose and throat affections W H PORTER *Med J & Rec* 1928 cxvi 167

A very large solitary polyp of the nose W MITHOEFER *M Med Cincin ati* 1928 viii 539

Amoloid tumor of the nasal fossae R NOEL and H ALON *Jy nchir* 1927 xxiv 497

Inflammation of the accessory cavities of the nose A ALCAIN *B I Soc de chirug de Chile* 1927 v 26

The relation of sinus infections to respiratory disease R W KNIGHT *Canadian M Ass J* 1928 xviii 54

The management of sinus infections with special reference to the non-surgical treatment H W WEAVER *J Am Inst H meop* 1928 xvi 34

The anatomy of the sphenoidal sinus E R RONCORONI *Presse med* 1928 ix 226

Acute silent infection of the maxillary sinus in relation to acute systemic diseases C A MCKINLEY *Minnesota Med* 1928 xi 36

Intracapsular sinusitis L S STOUT *Laryngoscope* 1928 xxxviii 48

Intranasal surgical treatment of chronic maxillary sinusitis B E HEMPSTEAD *Arch Otolaryngol* 1927 vi 426 [361]

Mouth

The mode of procedure in periodical roentgenological examinations under identical positions of the patient mainly in dentistry G HERULF *Acta radiol* 1927 viii 303

Stomatology in relation to prosthetic dentistry L OTTOFF *Med J & Rec* 1928 cxv 1173

Prophylactic odontology E ZAWEL and E ZAWEL *Semana med* 1927 xxxiv 1369

Studies of the pathogenic significance of granulomata of the roots of the teeth as regards local sepsis R W FBER and K L PESCH *Deutsche Monatsschr f Zahnhe* 1927 lv 875

Diathectic modification A A MENDILAHARZU *Semana med* 1927 xxv 375

Nausea and abdominal pain following the extraction of a tooth under novocain anesthesia E BECKER *Duodecim* 1926 xl 22

Acute gingivitis associated with fusiform bacilli and spiral forms C H MACK *U S Naval M Bull* 1928 xvi 40

Lymphoma of the tongue C I G WAKELEY *Proc Roy Soc Med Lond* 1928 xxi 436

Radium treatment of cancer of the tongue I C NICOLINI *Bol inst de clin oral* 1927 iii 993

Surgery in cases of intra-oral cancer I S JUDD and G B NEW *Radol* 1928 i 380 [362]

Pharynx

Tumor of the base of the rhinopharynx C DOMINICUZZI *J M ONARDI R ORLANDO and L DOWNING Re Soc de med i ternaz* 1928 ix 342

Lip ma f th ph rym F A FIGI nd V C HUNT
 Sug Clin N Am 19 7 1 537
 A large fib a com f th hyp pha yn G B NEW
 S g Clin N Am 19 7 1479
 The w k f S muel Sharp nd h prd s n th
 funct o s d sug ry of th to l W M Mo LISON
 G y s Hosp R p Lo d 9 8 lx 11 93
 Th h t path l gy of th t l n c t hum t cfe r
 and chorea W W G M cl CHLAN d DE W G RICIE r
 An I t Med 9 8 56
 Syphl t i fect na d ha of th t l S G EZ i
 nd C P U LIER A F c d m d U d M t
 deo 9 7 xii 44
 A cas of ang m of th to l R S DIAZ a d F P
 MASCIAS Re d p cild d 9 7 1 598
 C n f th l gual t l S G DABNEY Ke t ky
 M J 9 8 1 38
 El c t st nlat f the t nls W L CAHILL T
 Stat J M 19 8 11 594
 P tol to l ar P S STOUT La y sc p 9 8
 v vii 47
 Combati t l f r c ps nd t g d p M
 FINEBERG A ch Otol ryng l 9 8 59
 A i strume t to f c l at th op at f t n ll c
 tomy L ARZIN B sto M & S J 9 8 38
 Resp rat ry gym a tics ft ade d p to A Di
 Co g Ra eg i ter az d cl t ap 19 7 1 79

Neck

A c s f c th t n n f tag d f m th N I
 ECKHOFF G y H p R p Lo d 9 8 lx
 A c agental m f th n k D W DANIELS B t
 J Sug 9 8 523
 An ab rant ba h l yst nc ch n o th glt
 a deausi f at n d de th W R WATON A h
 Otol ryng l 9 8 57
 D p a t n myc f th ck nd m d t m I
 VAN DEN WILDENBE G A ch Ot l ryng l 9 8 1 5
 [362]
 D l opme tal d tu b c s of th p rathy d gl d
 p od c g sympt ms P E A N T a E D d m
 9 b l 5
 Th te hnu f th m al of yst d s f th
 thyr l s al d t W E SSTRUNK S g Gy &
 Ob t 9 8 l 9 [363]
 Th l e t the rg f th ba al m tab l c t
 con l o s b s ed n tudy f 3 95 a A S JACKS v
 Am J S g 9 8 49
 Log n th m c tab l f mput the ri f th
 body cc d g t Dub f m la C H McCLOY
 A ch I t Med 9 8 l 97
 Th mbr y h m c lat s f th th dgl d n
 ct d m l t e R C MOENL G An I t M d 9 7
 1 400
 Kelle f l p ote t d th ympt m t l gy f
 th thyr o d gl d G MARANOV R b t az d
 l n t rap 19 7 76
 A tat f c l c tnbution g t C R R TER
 Schw m d Wchn ch 9 7 l 836
 Th got p h l m E pan s mpar d with Am
 S D VAN METE C l ad M d 9 8 3r
 Got n Sp MARANOV A ch de m d c rug y
 pecl l 9 7 5 549 M d l b 9 7 x 397 49
 Got r l s ficat m m l t a d th r l t
 t od ne th r py J H HUTON Ill 1 M J 9 8 l
 53
 The p th g es of g t r de ed o t
 di s proce s A E H TIL R A ch S g 9 8 x
 6 [363]

Expe m ntal study f g it C WEGELIN Schw
 m d Wchn h 19 27 lvi 848
 Th s of od n got V E CHESNEY J ka sas
 M S c 9 8 1
 Th thy d and m n an s t eatme t t sp bl mod
 f t II W NORR Brit M J 9 8 94
 S n nd t n s foll win a wo d g f th o
 g trach l mp n nst ad f th a thma f p g
 n cy C SCHWARZER Z nt albl f Chr 9 7 h 857
 Th atu d t eatm nt f hyp thyro d m BAUER
 Z nt albl f Ch 9 7 l 64
 Ca b hyd te m tab l m hyperthy d m II J
 J r v E d rno l y 9 7 407
 Hyp rthy d sm d ed hy y th t c thy n
 p t c t with pl gl d l synd m w th s le d rma
 d c ta t l S INTON d H MANOU Bull et m m
 S med d h p d Pa 9 7 l 1685
 Th d t f hyp thyro d m t b g t m rs f th
 thy o d gland W F KRIEVOY JR a d D I vis
 A ch S 9 7 79
 Nod l got w th hype thy d sm II M TRO
 J A h Sug 9 7 7
 Meta ta gpa hym t od l g t r r l t
 t i l j y E BRINK 14N A l n W h s h 9 7
 93
 Th dad m t L DAUTREB d nd A Le o r
 B ell med 9 7 534
 Mult pl d m f th thy o d w th glyc u i r p t
 f c A W BR 14 Am J S g 19 8 7
 F opth l m g t J L DE COURCY B sto M &
 S J 9 8 c 35
 U lat l phth l m s Ga d es J DEJ
 PEMBERTIN d W W S G E S g Cl N Am 9 7
 1 40
 H th l k n d cd bv n p to l s ca of
 c d G B v d S R P HARTLEY P c
 Rev So M d Lo d 9 8 13
 A add th t e m t f e phth l m g t r
 A J WA ON Brit M J 9 8 83
 Th p p t p p t f p t e t with B e
 d g t r w th L o l t n J VOLLMANN Al
 Wch ch 9 8
 E phth l m g t e path l l ch nge as a r ult f
 th dm t t n f od (Lug l s s l t) W W
 S GER A h S b 9 7 x 873 [363]
 l t f th l f e r thy d t B ed w s
 d e P C AIRMONT S h w med Wchn chr 19
 1 83
 Op at n f t th c g t H MARR S h w
 med W h h 9 7 l 85
 Op at t e m t f t th r g it F SAT R
 REC d W F x Sh med W h n h 9 7
 1 89
 Th t m nt f th d c r BERA L y o h
 9 7 58
 M l g t t m r f th thy d gla d t ted by p
 at n d m d th c t 35 H H BOWI c
 Am J R nte l 9 27 5 [364]
 S m s g lly un p ta t to f th thyr d
 art ncs C H VSCHEV Schw med W h schr 9 7
 1 84
 A x th n th y d g ry T P DU TALL Pr c
 Ry Soc M d Lond 9 8 345
 Ko h pr at fo g t A KOCH R Schw iz
 m d Wchn h 9 7 l 8
 Th co d t f th t h f ll w g it pr at
 1 PE s D ut h Zt h f Ch 9 46
 Th hyd n o t t sp m f m
 g t pr at A T l nd B J s 10 x M t t
 d G g b d M d Ch 9 7 l 55

Laryngeal mycosis with parasites resembling the megalospores of Posadas S MAZZA and S PARODI Bol inst de clin quir 19 7 iii 909

Laryngeal tuberculosis L VILA ABADAL Ars med 1927 iii 365

Surgical aid in the radiotherapeutic treatment of cancer of the larynx G PORTMANN Presse med Par 1927 xxiv 1523

Laryngectomy for cancer A ALCAINO Bol Soc de ciruj de Chile 1927 v 264

SURGERY OF THE NERVOUS SYSTEM

Brain and Its Coverings Cranial Nerves

The anatomy of the brain from a clinical point of view F VON MUELLER Am J M Sc 1928 clxxv 1

The area frontalis of the cerebral cortex of the cat its minute structure and physiological evidence of its control of the postural reflex O R LANGWORTHY Bull Johns Hopkins Hosp Balt 1928 xlii 20

Traumatic frontal pneumatocele JEAN and VILLE CHAISE Bull et mém Soc nat de chir 1927 lvi 1158

The use of hypertonic solutions in the treatment of increased intracranial pressure W R BRAIN Brit M J 1928 i 86

Ocular phenomena produced by basal lesions of the frontal lobe W I LILLIE J Am M Ass 19 7 lxxvii 2099

Hyperpnea in the diagnosis of epilepsy N ROJAS Rev de especialidades 1927 ii 936 Semana méd 1927 xxiv 140

A brief discussion of the thalamic syndrome with a case report E S GURDJIAN Am J M Sc 1928 clxxv 18

The uncinate syndrome with the report of a case A M BUDWIN Clifton M Bull Clifton Springs N York 19 8 xiv 20

A case of cerebral malacia J F HENRIQUES Indian M Gaz 1928 lviii 18

Considerations on a case of cerebral abscess A M CAZZUTTI Semana méd 192 xxiv 1231

Diabetes insipidus in a case of metastatic cerebral abscess COZZOLINO and GACCERO Rev méd d Uruguay 1927 lxx 693

Otitic brain abscess with the report of a case C B BROOKS Nebraska State M J 1928 viii 4

Comments on the treatment of cerebral abscesses of otitic origin F De Sojo Rassegna internaz di clin e terap 1927 viii 685

The symptoms and operative removal of intracerebral areas of calcification M PETITPIERRE Beitr z klin Chir 1927 cxl 532

Observations regarding ventricular punctures W SHARPE Ann Surg 1928 lxxv 1

Sclerosis of the cerebellum in adults J L HANON Rev oto-neuro-oftalmol y de ciru neurol 19 7 i 257

Röntgenological visualization of the cerebellum K GOETTE Acta rad ol 1927 viii 340

The present status of our knowledge of the pituitary gland J M NIELSEN Bull Battle Creek Sanit & Hosp Clin Battle Creek Michuan 1928 xviii 49

The present status of our knowledge of the pituitary body C E LOCKE JR Ohio State M J 1928 xvi 37

The hypophysis and the internal secretion of the ovary BROUILLE SIMONNET and WODON Bull Soc d obst et de gynéc de Par 1927 xvi 691

The effect of pituitary administration on growing dogs W G DOWNS Jr Ann Int Med 192 i 412

Cerebral tumors DE MARTEL Bull et mém Soc nat de chir 1927 lvi 1216

Tumors of the brain their symptomatology diagnosis and operative treatment on the basis of personal observations L PULSEP 1927 Tartu Maello

Tumors of the brain and syphilis F P MOERSCH Am J M Sc 1928 clxxv 12

A left frontoparietal tumor E DOWLING and R ORLANDO Rev Soc de med interna y Soc de fisiol 1927 iii 55

A large tumor of the left hemisphere operation recovery KIKANSKY and ROBINEAU Bull et mém Soc nat de chir 1927 lvi 1127

A large tumor of the left cerebral hemisphere operation recovery DIKANSKY and ROBINEAU Bull et mém Soc nat de chir 19 7 lvi 1147

A case of cerebellar tumor A G LATES Lancet 1928 cciv 78

Malignant intracranial endotheliomata W MCK CRAIG Surg Gynec & Obst 1927 xlv 760

The indications for operation for brain tumor H OLIVECROVA Zentralbl f Chi 1927 liv 2250

A case of aneurism of the anterior cerebral artery causing compression of the optic nerves and chiasma S T HARRIS Brit J Ophth 1928 xii 15

Meningeal hemorrhage and ocular symptoms SCREMINI MEERHOOF ANAYA and BOVI Rev méd d Uru guay 19 7 lxx 660

Spontaneous meningeal hemorrhage with a case report F H REDWOOD South M J 1928 xvi 53

Cerebral hemorrhage in an infant aged eight months recovery J WILKIN Arch Pediat 19 8 xlv 56

The dura mater in cranial decompressive operations C A ELSBERG Ann Surg 1928 lxxvii 15

Grafts of whole skin upon the dura mater J L ROUV BERGER Bull et mém Soc nat de chir 1927 lvi 1305

Gangrene in the course of epidemic meningitis S LEVY Ztschr f Kinderheilk 1927 xlv 230

Queckenstedt's sign in a case of thrombophlebitis complicated by serous meningitis LEMAITRE and AUBIN Arch internat de laryngol 1927 xxxii 974

Two cases of meningitis serosa circumscripta F A CARMICHAEL and F R FRASER Proc Roy Soc Med Lond 1928 xvi 323

A case of pneumococcal meningitis R L WATERFIELD Guy's Hosp Rep Lond 1928 lxxviii 90

Local specific therapy of experimental pneumococcal meningitis III Incidental myelitis abscess and organization of exudates F W STEWART J Exper Med 1928 xli 11

A case of meningococcal meningitis treated by the lumbar cisternal and ventricular routes R N KLEMMER Atlantic M J 1928 x 1 242

Meningococcal leptomenigitis death autopsy inflammatory changes in the sphenoidal air sinuses and early cavernous sinus thrombosis (streptococcal) a case illustrating double infection A L TURNER and F E RAYNOLDS J Laryngol & Otol 1928 xliii 34

Tube culous meningitis in infancy and childhood—an analysis of twelve cases N W Sisson Virginia M Month 1928 liv 640

Two cases of hypertensive endocranial syndrome due to circumscribed adhesive arachnoiditis E DOWLING and R ORLANDO Rev oto-neuro-oftalmol y de ciruj neurol 19 7 284

R t o p ne t m y L t o t i e d D M TEL
 B l t m m S o t d h 9 l 9
 Th e l t f t h g a l t t m t f t g m n a l e
 l W F S E R M O N D T D t h Z t c b f Ch 9 7
 cc 6
 A b d t l i t h l e - a d t p h b l g
 f i e E W t B t J O p h t h 9 8
 I l t d t b l n t t h e f q d
 s y n h i s D M R t f t l m l y d r u g
 l 9 7 3

Spinal Co d and Its Co e n g s

A t e f t o s m y l t s M A U R L D E M J S E C H
 a d E B C r i r R d p e c l d a d 9
 Th d g n d l l u z t n f s p l c d t m
 L K B A L D t K t u k y M J 9 8 4
 I t s p s l p d l V D T R I d M B L A D O
 A h a g t d n l g 50
 H a m g d t h l m f t h p l d
 J C H a c c k d W A J H n J I w S t a t e M
 S o 9 8
 F l d m d y f a m c 9 7
 Ch r i t m y f B a e l m e d P o 7

S e c t o f t h t l t a l t t f t h p l d
 h o d t m v p r a t t h q R B i e t d B A N
 J d c h 9 9 [366]
 A c f t e l t l h d t m y f p l p f
 c g e t y D e L E N I E E d R i n v
 B l t m m s e t d h 9 7 l 3 f
 Th m h m f t h e c t l t h p l
 l m (t b t t t h t d v f m s l p m e
 b l t y) R a a d M E R I E P s m d P 9
 457

Peripheral Nerve

A c f t m t c u M A T R I D M J
 S e c h d B B S o r R d p b d d 9
 654
 N p l y N W A L R l t o s c 9
 C m p l t b t l p r a l y f t h g h t b f l
 p l u d p a r a l y f t h g h t p l r v h d
 f t d h l f m t h F S H E R d R d
 p e c l d d s 9 7 85
 A p l f m t m f t h m d W E
 B o G A B U R d f E I M J M h
 S t t M S c 9 8 4

P e t f i j r y t h m u s c l p r a l e r v e E B
 T A E C H A W t M d 9 8 73
 A f m p l t e d f t h m c u l o s p l e r v
 W C S t E N O V I n H J M S c 9 8 68 N 25 6
 N d t d g r a f t t h h n d S E u c
 B u A c h f b e l d c h 9 7 93
 P h u t s t h f s f i b r u p l s y O
 C o t z L J B A N C d D S z e B l l t
 m e n S m e d h p d P 9 7 l 5 6
 M m p p l y d q d p l e g w h b l t l f a c l
 p a l v W S C E s d M A R I N O 1172 A c h
 I t M d 9 8 l 6

Sympathetic Ne es

Th p h y s i c y f m l i n r v t w i t h p e c l
 f r t t h f f t h s y m p t h e t y s t e m E G
 M x r i J B & J t S g o 8 82 [368]
 Th d t r i b t f t h s y m p a t h m t t h b r a h i
 p l t l t t o s y m p t h c t m y f f t t h u p p
 t m t y A K u A h S g 9 7 87 [369]
 Th h f t h B r u g l e h e p t H
 K B t M C h 9 7 c l
 Th d h f p t i l s y m p a t h c t m y B
 U s Z t b l f C h 9 7 l 97
 A t q f p r a t n f t h m H E R M A S D R F E R
 Z t b l f C h o l 473

M i c l a n e u

Th p t f l a d t h b o f t h p e
 t m t v l t t h t l f t h d d e
 L I W t c L d n b g h M J 9 8
 A f t h r i S a c t e E f R d e p c l
 d d 9 7 674
 Th p d s f t h b p u l f d M B L A D O d
 E F K E B l t d l q u 9 7 899
 Th K h t t p l l f d T G H L F d
 C G A m J s y m p t h 9 8
 f L o c y t h l y d i m f b p l
 f P R i t J U S N l M B l l 9 8
 7
 S y n h i f t h t a l y t m m l t g d a
 b t A L L u r M d C l y t m o s 937
 N t e t h g l t m f G t B t a
 F d l l l d C F M C c l t J M h g
 S t t M S o o 9
 N b m D Q c k d M C r l f A
 S g 9 l 80 [369]

SURGERY OF THE CHEST

Che t Wall and Bre st

R e c t f t h t h r a c e w a l l F R u p Z t r a l b l f
 Ch 9 7 l 44
 G y n m t a S J n o a d D n t z R m d
 d U r u g y 927 638
 P u l t m t t d t t h F d l d e b l l E
 D o r n i g W n k l W e h h 9 7 l 87
 T b c l f t h b t E G R E N B l S d
 c r u g d Ch l 9 2
 A t e f t t y c l l t m f t h e t l A F o x d
 D C o t s B l S d b t y g d e B s A
 9 7 558
 S m f t h b t f l l w e d t w t y j e l t b y
 b d m l c m A F U L E T O L a t 9 8
 6

S b l d t h m y b t e t t h d p l t o f
 th l t d t t g e t t h d l p t
 J A B t J S 925 500 [31]
 Th t m t f m f t h b t w t h l e c t c l
 t d d t h c p y B H O F l l l
 M J 9 8 l 46

T a h a L u n g s n d P l e u r a

E d p v p n c F L M Y E R S L y s P
 9 8 7
 F h b h c p y a d a s p l p y C
 J B n A h O t l y g t 9 8
 C t e J c k R e r t m d l t P
 19 7 68

- Conclusions regarding the technique following 1000 intratracheal injections of iodized oil in adults S PRITCHARD B WHYTE a d J K M GORDON Bull Battle Creek Sanit & Hosp Clin Battle Creek Michigan 1928 xviii 2
- Cou h its action on material in the tracheobronchial tract experimental study L ARCHIBALD and A L BROWN Arch Surg 19 9 xvi 322 [371]
- Obstructive atelectasis—case report F G GILL Virginia M Month 1925 liv 658
- The clinical course and etiology of upper respiratory infections C I BROWN J Am Inst Homeop 1928 vi 44
- Leeches as foreign bodies in the upper air passages in Palestine M SALZBERGER La yngoscope 1928 xxxviii 27
- Infections of the lymph nodes of the bronchial tree. W LERICHE Arch Surg 1928 x 1 338 [371]
- Unresolved pneumonia a surgical analysis O C PICKHART Arch Surg 1928 x 1 192 [371]
- Chronic pneumopathy due to the Fr diacende bacillus BRULE HUGUENIN and GILBERT DREYFUS Bull et mém Soc méd d hôp de Par 1928 liii 130
- A case of pulmonary mycosis W R STOKES and S McCLARY Boston M & S J 1928 c viii 1350
- Pulmonary aspergillosis I VICAUD Arch med chir del'appar respi 1927 ii 243
- A case of intermittent pyre a case associated with and probably due to bronchopneumonia shown April 6 1927 J G WILLMORE Proc Roy Soc Med Lond 1928 xvi 474
- A case of pulmonary hydatid cyst difficult to diagnose TAJIA and ROMAN MANZANETE Arch de med chir y especial 1928 viii 605
- Silent pulmonary hydatid cysts GARCIA TRIVINO Arch de med chir y especial 1928 viii 608
- Lu g abscess S D GLEETEN J Iowa State M Soc 1928 xviii 0
- Experimental abscess of the lung in the dog S J CROW and J I SCARFF Arch Surg 1928 x 1 6 [372]
- The etiology of abscess of the lung experimental and clinical studies D S ALLAN Arch Surg 1928 x 1 6 [372]
- Non tuberculous pulmonary abscess E A PIERCE Northwest Med 9 8 xxvii 24
- Lung abscess following pneumonia coccus septicaemia O C PICKHART Ann Surg 1928 lxx 1 4
- Abscess of the lung cured by spontaneous elimination Excubac Bull et mém Soc méd d hôp de Par 1928 liii 1634
- The treatment of bronchopulmonary suppuration by local vaccination J J SPENCEBERG and L MUNI Re Soc de med interna Soc d ts 1 102 iii 35
- Bronchoscopy in the treatment of fungus suppuration M C MYERSON Med Clin N Am 9 8 1901
- Abscess of the lung relieved by bronchoscopy report of cases J D KERNAN Arch Surg 1928 x 1 215 [373]
- Non tuberculous bronchopulmonary suppuration and its results following treatment by artificial pneumothorax W WHITTEMORE and G M BALDWIN Arch Surg 1928 x 1 228 [373]
- Acute pulmonary suppuration the self active action of artificial pneumothorax in the treatment of the disease C EGGERS and J D KERNAN Arch Surg 1928 x 1 228 [373]
- Non tuberculous pulmonary suppuration a comparison of operations and their results H ILLIANTH Arch Surg 1928 xvi 0 [374]
- Unilateral bronchiectasis—extra pleural thoracic plasticity J B FLICK Ann Surg 1928 l 1 134
- Bronchiectasis treated by thoracoplasty and phrenicectomy A E ROCHE and J E H ROBERTS Proc Roy Soc Med Lond 1928 xvi 31
- Bronchiectasis treated by phrenicectomy A I ROCHE and J C H ROBERTS Proc Roy Soc Med Lond 1928 xvi 326
- Bronchiectasis treated by phrenicectomy I HILTON and F R FRASER Proc Roy Soc Med Lond 1928 x 1 326
- Syphilis of the lung simulating tuberculosis or carcinoma of the lung A L LOURIA Med Clin N Am 1928 vi 931
- The evolution of surgical treatment of pulmonary tuberculosis JESSEN Prog de la clin Madrid 1927 xx v 845
- The surgical treatment of pulmonary tuberculosis E ARCHIBALD Canadian M Ass J 1928 xviii 3 [374]
- The surgery of pulmonary tuberculosis W WHITE MORE Boston M & S J 1928 c xviii 1395
- The action of phrenicectomy on tuberculous lesions of the upper lobe J TAPIR Bull et mém Soc méd d hôp de Par 1928 liii 1636 [375]
- Pulmonary tuberculosis with abscess one stage surgical collapse S W HARRINGTON Surg Clin N Am 1927 vi 507
- The acoplasty in the treatment of pulmonary tuberculosis J ARCE and O IVANISSEVICH Bol inst de clin qu r 9 7 iii 868
- First pleural thoracoplasty in the treatment of certain cases of pulmonary tuberculosis K HENIUS and E GOHRBANDT Med Klin 1928 xxiii 100
- The acoplasty in the treatment of certain cases of pulmonary tuberculosis I GOHRBANDT Med Klin 1927 x ii 1022
- The clinical basis of artificial pneumothorax II CARPI Semana méd 927 417
- The diaphragm and pneumothorax R COURTOIS Arch med chir del'appar respi 1927 ii 215
- Artificial pneumothorax and tuberculous laryngitis ARMAND DELILLE Bull et mém Soc méd d hôp de Par 1928 liii 1361
- Bilateral simultaneous therapeutic pneumothorax in a tuberculous child P ARMAND DELILLE and C LESTOC QUOY Bull et mém Soc méd d hôp de Par 1927 liii 1693
- Two cases of bilateral pneumothorax in a child P GAUTIER Bull et mém Soc méd d hôp de Par 1927 liii 1698
- Clinematic presentation of the lung in the course of therapeutic pneumothorax L DANIELLO Arch med chir del'appar respi 1927 ii 0
- Surgery M KIRSCHNER and O NORDMANN Vol IV It Surgery of the lung A W MYER Foreign bodies in the respiratory passages Tacheobronchoscopy H IRENZER Surgery of the pleura Surgery of the diaphragm and phrenic nerve F LANDOIS 1927 Belin Urban & Schwarzenberg
- Cauterization pneumectomy WHITEFORD Ann Surg 1928 lx ii 154
- Compensatory hypertrophy of the lung after unilateral pneumectomy T ADDIS J Exper Med 1928 xvi 1151
- The roentgenological manifestation of primary carcinoma of the lung B R KIRKIN and R PATERSON Am J Roentgenol 928 20 [375]
- An unusual foreign body in the pleural cavity A G IRRFIRA Idan M Gaz 1928 liii 20
- Persistent non tuberculous pneumothorax report of two cases one of more than ten years duration the other of more than one year duration N L TIERWALD Arch Surg 1928 x 1 46

P r t po ta s p e m th p t I the
c s E I W d C ROB SON \ ch S g
9 8
Th c n t b tw the pl d th l
d ll ry lymph t c gl d H ROU IERE A
d t p th 9 [376]
Th mpy m p bl m \ L Loc so n A ch S rg
9 8 97 [3 6]
Th lat f h ncl p lm v pp at t
mpy m A O W L ky A h s k 9 8 S
A t p tp m mpy m s W HAR G OV
Su g C l n \ Am 9
Tl tr tm t f c t mpy ma J M H E
M t M d 9 8 6
D tl mpy m f th l l c t J Q GR ES
N w O l M & S J 9 8 l 4
Ch mpy m s W HARRI \ s k Ch
N Am 9
G mpy m hld p lm s p t C F
G d M l L f r S g C \ & Ob t 9 8
l q
T h ul mpy m R J A C d M As
J 9 8 [377]

Heart and Pericardium

H d t l f th hat I Aco J R C VE
d A l B ci R So d med i a s s d
t l 9 469
P d l n f t W HARR G S g Cl
N Am 9
S pp t p n ad t p t f thr F W
P C d ly f h m t t p d t p t f
p f th E s S s r W M J
9 8 1 6

Esophagus and Mediastinum

A f l f g t d th ph g B P
G r A I d M C 9 8 l
U l l d m t f h tp th æ ph
f t M C M E La y p 9 8
l t p m bl t p d th æ ph g
c f f h b d ? L S j k D d m 9 6
v l 8
A m t l f f d l with l l d f j t S G
Sc P t M J 9 8 33
H y k t f th æ ph g I N G S r
C d M A J 9 8

A th c s I p m ry m g æ ph gu p t d
up by the a l d m l ute D TA DEI A tal d
Ch r 9 7 67
M g æ ph g with d t c f m f th s p p r
t f th æ ph g t f th c d H DUBOUR
B l l m é m S méd d hóp d P 9 7 l 5
P l n d u t l m c mb d w th m g æ s ph gu
I A N DEN W L F ABE G Ar h Otolar y l 9 8
44
d t c l f th th rac c æ s ph vu L A S t
Am J R t l 9 8 27 [377]
Th p rat t atm t f æ s op g f d t f m
O H r M t h f Oh 9 7 f 614
G d with the b n m b i d p sm H P
MOSIER A Otol f h ol & L ryngol 9 7 [377]
C m I th æ ph g I S CLAYTON S g
Cy & Ot 9 8 l 5
C m f the æ s ph g pot f fifty s
J S t \ Am J M S 9 8 cl 79
C m f th æ s ph gu w th the pot f f
U l a A F R A DRESE Med Cl N Am
9 8 00
l t pl u l ct f the æ ph g th f th
m a th t mpy d my t n pl l method
F T EK A ch Sug 9 8 7
R t l g l c id t f the med t m
W W B e Am J R e t g l 9 8 36
L p m ta f th m d st n m E A G A H M nd E
R W e A h S g 9 8 v l 38
W th th thym J H W e r A h P d t 9 8
xl
T cas f p d d ath n dult with n enla g d
thym sgl d S S IELD N M d J A t l 9 8 6

Milellineous

Th lu f l p d l the d of l t th ra c
d L S T BURRELL B t J R d of 9 8 9
v l f lat l s w s f the th S B o \ d
H B Wei J Am M A 9 8 87
T m s f th th C R CASTLE N th west
M d 9 8
I tr th a e pl m (?) f l l w hyp m ph m
E R Cu iv d Sir T HORD P R Su
M d Lo l 9 8 xx 37
E d th r t M BO CHARDT Z nt l b l f
Ch 9 l 58
T ry n Am a t p e t d
l k W M ER Ar h S g 9 8 36

SURGERY OF THE ABDOMEN

Abdomen Wall and Peritoneum

H n mpy f h n d wh l f t y W I
C B t M & S J 9 8 c 3 4 K M NA AK
A f t g d t ng l t d h K M NA AK
I d M G 9 8 l 9
St nulated mbl l w th g ge f th t
l M K S W A S g 9 8 I 44
A th da f at d g l
h m S K E Z Y Z t l b l f Ch r 9 l 77
Th d am p c pl th p t l g l
h n G G J R E Z t l b l f Ch 9 l 5
Th techn q f th r d l p t f r g l
h M M G s Z t l b l f Ch 9 7 l

R p f th t n l blique g l h
I G C v n S g Gyn & O l t 9 8 l 3
F g b dy th p t l c ty G L A M s 9
M M J 9 28 l 39
Th l f p e t l d t g p g L J
W J P th & B ct n l 9 28
I t t s H A t m m u t a t x p
m t l b l c l p t at H Go d r r d B
S E R Acl I t M d 9 28 l 4
I t t d f t F MAY R VO V S r p Z t h
l k d h l k o l 00
Ch p r l l p nt t s (Z ck gu p t nt)
M R C R B t M Ch 9 7 l 484
J t o m y g l p nt t W D W A c s
J M d C n n t 9 8 1 533

Pseudomyoma peritonei associated with ruptured ovarian cyst and appendicular disease J S FAIRBAIRN and T H SIMS Proc Roy Soc Med Lond 1928 xv 372 [379]

Congenital malformations of the mesentery a clinical entity G E WILSON Brit J Surg 1928 xv 438 [379]

Torsion of the great omentum a note on two cases C MACULEY Brit J Surg 1928 xv 387 [379]

Volulus of the omentum E TROJAN Zentralbl f Chir 1927 liv 2705

Cystic lymphangioma of the greater omentum P M GRAUSMAN and H L JAFFE Ann Surg 1928 lxxvii 66 [379]

Gastro Intestinal Tract

The alimentary canal of the medical student T W TODD Ann Int Med 1921 140

Amyl nitrite as an anti spasmic in roentgen examination of the gastro intestinal tract G W HOLMES and R DRFSSER Am J Roentgenol 1928 ix 44 [389]

Diaphragm of the wall of the alimentary tract L SIERRA Bol Soc de cirug de Chile 1927 v 267

Stenosis of the alimentary canal case reports G SHERILL Kentucky M J 9 8 xxvi 2

Upper gastro intestinal disease associated with syphilis H L BOGATS and J BANK J Am M Ass 1928 xc 175

The relation of deficiency of Vitamin B to atony of the stomach J F POWLANDS and E BROWNING Lancet 1928 ccvii 180

Spontaneous hernia of the stomach into the thorax as the oesophageal orifice R GRÉGOIRE Bull et mém Soc nat de chir 1927 liii 30

The action of the digestive juice upon the lactiferous glands C A SAGSTROM and A SOLARI Rev Soc argent de Biol 19 7 iii 5/3

The influence of the roentgen rays upon gastric secretion J T CASE and W N BOLDYREFF Am J Roentgenol 1928 vi 6 [389]

Reactions of the colorimetric method in gastric achylia G PECO Semana méd 1927 xxiv 18

Lesions of the stomach and duodenum C S McVICAR J Lancet 19 8 vi 11 30

Cardiospasm J D GARVIN Atl ntc M J 1928 xv 1 240

The treatment of the so called card spasm C IORHUSSEN Med Klin 19 7 xiii 249

Syphilis of the stomach C IERMAN Am J Syphilis 19 8 49

Gastric symptoms occurring in syphilis I GRAY Med Clin N Am 1928 xi 889

An investigation into defects in the pyloric part of the stomach I ARSZ Acta radiol 19 7 iii 274 [389]

Congenital pyloric stenosis B B CROW J Am M Ass 19 8 xc 10

A case of pyloric stenosis caused by tuberculous glands A J PALMÉN Duodecim 1926 vi 1 408

The operative treatment of hypertrophic pyloric stenosis in the infant B HUNSDORFER Muenchen med Wchnsch 19 1 iv 1697

Certain problems of gastric ulcer R BALINT Orvosi hetl 1927 lxxi 33 63

Clinical and experimental studies of ulcer G E KOJETZKY Deutsche Ztschr f Chir 19 7 xc 39

Clinical and experimental studies of ulcer A ORATOR Deutsche Ztschr f Chir 1927 ccv 143

Studies of the microscopic and microscopic structure of chronic ulcer and of its healing process T KALIMA Acta Soc med Lennicae Duodecim 9 iii

Perforated gastric and duodenal ulcer J L RANSOROFF J Med Cincinnati 1928 vii 520

The medical treatment of peptic ulcer A J BEAMS Ohio State M J 1928 xxiv 21

The ambulatory treatment of peptic ulcer F B TAYLOR California & West Med 1928 xxviii 48

The Sippy cure with the ulcer diet H STRAUSS Jahrbk f aerztl Fortbild 1927 xviii 28

Gast oesophageal ulcer medical and surgical considerations A A STRAUSS L BLOCH and J G FRIEDMAN J Am M Ass 1928 xc 18

Ulcer of the lesser curvature of the stomach treated with insulin J R GOVENA Semana méd 1927 xxvii 1325

New developments in the treatment of peptic ulcer with notes on the operative care and management of complications A B RIVERS J Lancet 1928 xxviii 21

Problems in the surgical treatment of peptic ulcer D C BALFOUR Surg Clin N Am 1927 vii 1413

Degenerative ulcer of the pylorus partial gastropylorctomy F RAYO Bol Soc de cirug de Chile 9 7 v 59

The final results of the treatment of gastric ulcers by gastropylorctomy Kocher's operation in twenty seven cases reexamined CHARLES BLOCH MAYER and CUNEO B Il et mém Soc nat de chir 19 7 liii 1387 [380]

Complicated gastric and duodenal ulcers two and one half years postoperative O C PICKARDT Ann Surg 1928 lxx 1 143

Lympho-angiomatosis of the duodenum SJOEVALLE Zent bl f Chir 19 7 liv 2 5 59

Lympho-angiomatosis of the stomach S JUNGHEIMER Acta radiol 9 7 vii 317

Inflammatory tumors of the stomach and the ileocecal region M Most Znt bl f Chir 1927 vii 727

Carcinoma of the stomach I R GRAHAM Canadian M Ass J 1928 xxviii 25

Gastric carcinoma B D BAIRD Illinois M J 1928 lvi 44

Comments upon two cases of plastic cancer of the stomach H GROVE and B ARCE Bol Soc de cirug de Chile 1927 v 246

The prognosis of ulcer carcinoma of the stomach H FINSTERLIN Wien med Wchnsch 1927 lxxv 342

The treatment of gastric ulcers J H WOOLSEY California & West Med 1928 x iii 35

The principles of gastric surgery D C BALFOUR Minnesa M J 1927 x 685 [381]

The management of lesions of the stomach and duodenum complicated by hemorrhage D C BALFOUR J Am M Ass 1927 lxxv 166

The results of operation for duodenal ulcer in physica D C BALFOUR Ann Surg 1927 lxxv 691 [381]

Faulty gastroenterostomy S HAVAS Muenchen med Wchnsch 1927 lxxv 1664

Successful resection of the upper half of the stomach E BACHERS Muenchen med Wchnsch 1927 lxxv 1454 [383]

The DePez stomach and intestinal suturing apparatus J LOESSL Ann Surg 1928 lxxviii 80

A wire basket in the bowel H A GRAHAM Brit M J 1928 iii 3

An anomaly of intestinal rotation J W G GRANT Surg Gynec & Obst 1928 xlii 33

Physiological investigation of the fistula (second report) Supplementary research of fermentations in the digestive tract T TCHIBANA J J Obst & Gynec 1927 x 40

The nutrition of the intestine after ligation of the mesentery in the mesentery practical recommendations based on experiment on animal R DEMEL Arch f Klin Chir 1927 cxlvi 61 [383]

Foreign body appendicitis with particular reference to the colloidal-chemical development of appendiceal concretions T TOBLER Beitr z klin Chir 192, cvl 539

Strictly mechanical obstruction of the intestine without abscess or peritonitis in the course of an initial attack of appendicitis CARAVEN and BASSET Bull et mém Soc nat de chir 192 lvi 104 [387]

The rôle of appendicitis in the development of periducal adhesions P ETCHEGORRI Prensa med ar ent 192 vii 13

Acute appendicular obstruction W P BIGGART South M & S 19 8 xc 31

Acute retrocecal appendicitis—how its symptoms vary from the typical case D W PALMER J Med Cincinnati 1928 viii 56

Ruptured appendix with extensive peritonitis when shall we operate? F A JONES Kentucky M J 1928 xxvi 8

Acute appendicitis with pyuria M THOMPSON J Am M Ass 1928 xc 16

Abdominal pain of throat infections in children and appendicitis J BRENNEMANN J Am M Ass 1928 lxxxi 2183 [387]

Acute appendicitis in the aged H LEIDMAN Wien klin Wchnschr 19 21 992

Chronic appendicitis H KOSTER Arch Surg 19 8 xvi 44

Again the question of chronic appendicitis C SCHUTZ Wien med Wchnschr 19 lxxvii 34

The surprises of chronic appendicitis M LETULLE Presse méd Par 927 xxxv 521

Care in the appendix W SCHIEMER Beitr z klin Chir 192 c 146

The operative treatment of prolapse of the rectum in children E GLASS Zentralbl f Chir 19 12 2614

Rectal ematation and what can be occasionally felt in the female which will support the diagnosis of appendicitis H SELLEREN Zentralbl f Chir 19 liv 568

The influence of rectal disease upon other portions of the digestive tract C J DRUCK Internat J Med & Surg 19 8 xli 20

Actinomycosis of the rectum RISAK Zentralbl f Chir 1927 liv 56

The roentgen diagnosis and treatment of polyposis of the rectum and intestines MOST Zentralbl f Chir 192 liv 3397

The symptoms of cancer of the rectum C C MECHLING Atlantic M J 19 8 xxxi 23

The diagnosis of cancer of the rectum J H ALLEN Atlantic M J 1928 xxvi 234

The choice of operation in carcinoma of the rectum D B PREIFFER Atlantic M J 1928 xxvi 36

The pathogenesis of squamous cell cancer of the anal portion of the rectum S A BROFELDT Acta Soc med Fennica Duodecim 192 vii 14

The differential diagnosis of rectal cancer C ROSE Texas State J M 1928 xxiii 58

A case history contribution in the question as to whether rectal and gastric carcinomata especially in old persons should be subjected to operation H LORENZ Wien med Wchnschr 1927 lxxvii 34

The anus (applied anatomy) R R BEST Nebraska State M J 19 8 vii 11

Benacé in the treatment of pruritus ani F C LEOMINS R V GORCH and J L MATHESHEIMER Med J & Rec 19 8 cxxvii 9

Vacuum cup examination of hemorrhoids H STRALSS Deutsche med Wchnschr 192 lvi 391

A review of recent literature on the injection of internal hemorrhoids—with an analysis of fifty of the writer's recent cases M C PRUITT J Med Ass Georgia 1928 vii 10

The origin and treatment of fistula in ano L A BLIE Surg Clin N Am 192, vii 15,9

Liver Gall Bladder Pancreas and Spleen

The physiology of the liver and gall bladder F C MANN Minnesota Med 1928 vi 25

The bilaterality of the liver A H McINDOE and V S COUNSELLER Arch Surg 1927 xv 589 [387]

The functions of the liver and tests of their efficacy A M SNELL and L G ROWNTREE Ohio State M J 1927 xxiii 99 [387]

Studies of the cholegogue action of decholin tablets W DUEKER Deutsche med Wchnschr 1927 lvi 139

Total hepatic ptosis A A FORTY Brit M J 1928 i 33

A case of traumatic rupture of the liver early operation and suture of the hepatic laceration cure L GRIMALDI and A BASSET Bull et mém Soc nat de chir 192 lvi 110 [388]

Diseases of the liver and bile passages A M SNELL and J F WEIR J Am M Ass 9 lxxvii 99 [388]

Symptoms of latent hepatic dysfunction A FERRARINI R forma med 19 xliii 1

Uric acid excretion in experimental hepatic insufficiency J L BOLLMAN and F C MANN Surg Clin N Am 1927 vi 22

Studies of the lactic acid in the blood particularly in hepatic diseases G NOHL Klin Wchnschr 19 7 vi 46

Toxic hepatitis and hepatic lysis following the use of atophan M A RABENWITZ Med Clin N Am 9 8 i 105

A case of hydatid cyst of the liver W C HARNETT Ind an M Ga 928 lx 116

Biliary lithiasis Hydatid cyst of the liver Hepatic olic of hydatid origin O IVANOVICH Sema a méo 1927 vi 334

Two cases of hydatid cyst of the liver opening into the bile passages P JAUROGLI Semana méd 192 xxvii 1366

Clinical aspects of jaundice C S McNICAR and W T FITTS J Am M Ass 92 lxxvii 208 [388]

Bile pigments and bile acids of the blood in jaundice H F SHUTKLE J KATAYAMA and J A KILLIAN Am J M Sc 928 clx 103

Inherited icterus or familial acholuric jaundice J S MANSON Brit M J 19 8 131

Weils disease as occurring in the Andamans V N DERSKAR Indian M Ga 928 lxiii

Proliferation of endothelium on the liver in experimental venous stasis C BOLTON and W G BARWARD J Path & Bacteriol 928 xxxi 45

Acute biliary degeneration—cholecyst gastrostomy C G HEYD Ann Surg 928 lxxxii 46 [389]

The effects of obstructive lesion of the common duct of the liver F S JUDD and V S COUNSELLER J Am M Ass 927 lxxxix 1 [390]

An antral hepatic duct—pencholecystitis J M HANFORD Ann Surg 9 8 lxxxvi 151

Primary carcinoma of the hepatic duct VANDER VEER and VELJUS Ann Surg 1928 lxxxvi 134

Concerning the prevalent dialysis of function long attributed to the gall bladder E A BOYDEN Surg Gynec & Obst 1928 xlvii 30 [390]

GYNECOLOGY

Uterus

- An accessory uterus with an arrested pregnancy. L. AVERETT. *Am J Obst & Gynec* 1928 xv 173.
- An experimental study on the excretory function of the uterine mucosa. Part II. Pathological and histological changes in the uterine mucosa due to various kinds of poisoning. H. SAKUMA. *Jap J Obst & Gynec* 1927 x 50.
- The origin and dissemination of heterotopic uterine epithelium. W. MESTITZ. *Arch f Gynec* 1927 cv 667.
- Alkali necrosis of the uterus and adnexa: a previously undescribed condition. H. RUNGE. *Zentralbl f Gynec* 1927 li 156.
- Metritis dissecans (puerperal gangrene of the uterus). E. ROTHHAUS. *Arch f Gynec* 1927 li 77.
- Infection of the uterine cervix. C. MAZER and M. SABEL. *Med J & Pec* 1928 cxviii 30.
- Chronic cervicitis. L. DORSETT. *J Missouri State M Ass* 1928 xvi 14.
- Agglutination of the uterine cervix. A. J. FRIERS. *Pev argent de obst y gynec* 1927 i 145.
- Infected myoma uteri: report of three cases with marks of red degeneration. M. M. STARK. *Am J Surg* 1928 iv 83.
- A case of red myoma without pregnancy. J. AFFONT. *FERRARI and HOUEL Bull Soc d obst et de gynec de Par* 1927 xvi 641.
- Removal of a 65 lb fibroid. E. S. HICKS. *Canadian M Ass J* 1928 xviii 58.
- Deep roentgen ray radium myomectomy and hysterectomy: relative value in uterine fibromyomata. W. D. JAMES and A. W. JAMES. *J Am M Ass* 1928 xc 201.
- The pubis as a contra-indication in vaginal hysterectomy for fibroma. A. CHURCO. *Bol Soc de obst y gynec de Buenos Aires* 1927 vi 502.
- Xanthoma cell in the uterus. W. SCHILLER. *Arch f Gynec* 1927 cxv 346.
- Flectrodathermy—its use in the treatment of benign and malignant lesions of the uterine cervix. I. M. MIKELS. *California & West Med* 1928 xxviii 67. [393]
- Epidermoidization of the cervix uteri and its relation to malignancy. C. F. FLUHMAN. *Am J Obst & Gynec* 1928 xv 1. [393]
- Uterine cancer. W. P. HEALY. *Med J & Rec* 1928 cxviii 21.
- Cancer of the uterus. J. B. COMAS CAMIS. *Ars med* 1927 iii 381.
- The age incidence of carcinoma corpus uteri. A. C. PALMER. *Proc Roy Soc Med Lond* 1928 xvi 36. [393]
- A new contribution to the study of the radiobiology of carcinoma of the cervix submitted to radium therapy at a distance. A. P. DUSTIN. *Can cer* 1927 iv 387. [393]
- The present status of therapy of cancer of the uterus. J. O. POLAK. *Am J Obst & Gynec* 1928 xv 26. [394]
- Carcinoma of the cervix: treatment by a combination of roentgen rays, radium and electrothermic coagulation. J. T. STEVENS. *Radiology* 1928 v 5.
- The results of total abdominal hysterectomy for uterine carcinoma in the City Hospital at Tampara in the period from 1919 to 1924. H. BERGHOLM. *Duodecim* 1925 xli 449.
- Vaginal hysterectomy. SÉJOURNET. *Bull et mém Soc d chirurg ens de Par* 1927 iv 579.

Vaginal hysterectomy: technique and indications. 123 consecutive cases without complications. R. PETIT. *Bull et mém Soc d chirurg ens de Par* 1927, vi 516-537. [395]

Adnexal and Peritubal Conditions

- Adnexitis in practice. F. LUQUE. *Med Ibera* 1927 xi 483.
- Observations on the intramural and isthmus portion of the fallopian tubes with special reference to so-called isthmus spasm: based on clinical X-ray lipiodol study and uterine insufflation in fifty cases of tubal occlusion. I. C. RUTIN. *Surg Gynec & Obst* 1928 xlii 87. [396]
- A case of recurrent torsion of the fallopian tube with hamatosalpinx. J. CASAGRANDE. *Am J Obst & Gynec* 1928 49.
- Hydrops tubae profluens. *Brit M J* 1928 ii 99.
- Subserous hydatid cyst of the tube. J. M. JORGE and O. BLERISSO. *Sema mcd* 1927 x iv 43.
- Salpingitis: a plea for delayed pelvic intervention. J. W. LECHE. *N Y St State M J* 1928 cxviii 9.
- Ruptured pus tube. F. J. LYNCH. *Bost n M & S J* 1928 c c ii 1362.
- Tuboma of the fallopian tube. H. O. NELSON. *Arch f Gynec* 1927 c 766.
- Studies of isolated ovaries. M. P. NIKOLAEFF. *Ztschr f d kles exper Med* 1927 liv 3.
- Studies on the occurrence of an interstitial arrangement in the cow during intra-uterine life. P. MEYER. *Arch f Gynec* 1927 cxviii 177.
- The action of the ovarian hormone. F. VAN DE WALLE. *Zentralbl f Gynec* 1927 li 26.
- Discussion on the action and the use of ovarian extract. W. L. DIXON and others. *Brit M J* 1928 ii 9. [396]
- A case of strikingly severe intra-uterine hemorrhage from the ovary during menstruation. W. GROSS. *Zentralbl f Chir* 1927 liv 205.
- Dangerous hemorrhage from corpus luteum in an apparently normal ovary. C. I. CORLETTE. *Med J Australia* 1928 i 15.
- Rare neoplasms of the ovary. H. O. NEUMANN. *Arch f Gynec* 1927 cxv 74.
- A case of papilliferous cysts of the ovaries. J. P. HEDLEY. *Proc Roy Soc Med Lond* 1928 xvi 30.
- Twisted cysts of the ovary. R. ARAYA and C. CARRUO. *Rev mcd Lat Am* 1927 xiii 239.
- The theory and pathology of ovarian dermoids. L. H. LEVY. *Am J Obst & Gynec* 1928 xv 17.
- A malignant corpus luteum tumor. A. H. CURTIS. *Am J Obst & Gynec* 1928 xv 120.
- Carcinoma of the ovary in infancy. A. C. HUNT and H. E. SIMON. *Ann Surg* 1928 lxxv ii 84. [397]
- Cancer of the ovary and postmenstrual metrorrhagia. J. C. AUMOND. *Bol Soc de mcd y gynec de Bue o Aires* 1927 vi 541.
- End results in conservative and radical ovarian surgery. P. W. TELFORD and H. L. DARNER. *J Am M Ass* 1928 c 284.

External Genitalia

- The clinical diagnosis of adenofibrosis vaginalis for mela. H. HINSELMANN. *Ztschr f Geburtsh u Gynec* 1927 ci 408.
- A case of neoplasia of the vulva. J. SAHLER. *Zentralbl f Gynec* 1927 li 289.

- Extra uterine pregnancy subsequent pregnancies J C MASSON and H E SIMON Surg Clin N Am 1927 vii 1601
- Tubo uterine pregnancy J B DELEE Am J Obst & Gynec 1928 xi 120
- The etiology and clinical manifestations of tubal pregnancy F PUPPEL Monatsschr f Geburtsh u Gynaek 1927 lxxvii 102
- T c fertilized ova in one tube superfetation internal migration of the ovum T MICHOLOTSKI Zentralbl f Gynaek 1927 li 394
- Ruptured ectopic gestation occurring on both sides E G COLLINS Brit M J 1928 i 34
- Two cases of tubal rupture with severe pain COSTANTINI Bull Soc d obst et de gynec de Par 1927 xvi 638
- The value of the pyramidon test as proof of internal haemorrhage particularly of ruptured tubal pregnancy G BAKSCHT Zentralbl f Gynaek 1927 li 2481
- A fully developed fetus from an ovarian pregnancy A SOUKKELI Duodecim 1925 xli 750
- A case of secondary abdominal pregnancy J F CARRELL Am J Obst & Gynec 1928 xv 111
- Abdominal pregnancy operated upon at term with delivery of a living child ANDERODIAS and DENIS Bull Soc d obst et de gynec de Par 1927 xi 675
- A child two and one half years old born of an ectopic pregnancy J LACOUTURE and I MASSÉ Bull Soc d obst et de gynec de Par 1927 xi 666 [399]
- On a parasitic fetus SIR J BLAND SUTTON Lancet 1928 cc i 24
- Unive sal edema of the fetus M L PÉREZ and A JAKOB Semana méd 1927 xxvii 186
- Streptococcal osteitis of the pubis at the end of pregnancy JAFFONT FERRARI and LARRIBERE Bull Soc d obst et de gynec de Par 1927 xvi 634
- Pregnancy and uterine myomata G HROMADA Arch bra f med 1927 xvii 966
- Krukenberg's tumor in pregnancy A J GUIROY and A JAKOB Bol Soc de obst y gynec de Buenos Aires 1927 vi 483
- Diabetes mellitus and pregnancy A WALKER Proc R Soc Med Lond 1928 i 377 [399]
- Pyelonephritis its occurrence and treatment in pregnancy W S PUGIL Med J & Rec 1928 xciv 127
- The rôle of chemical irritation by microcrystals in pyelonephritis and intestinal infections due to colon bacilli as the cause of microcrystal infection in patients LE LORILLER and H CHU Bull Soc d obst et de gynec de Par 1927 xv 619
- The genesis and clinical forms of intoxication of pregnancy F ALFIERI Clin ostet 1927 xviii 636
- Development of a toxic condition in the dog during gestation W DEB MACVIGER J Am M Ass 1928 xc 71
- The treatment of the toxemias of pregnancy H J STANDER N York State J M 1928 xxi 1180
- Insulin and intra-venous glucose injections for treatment of pregnancy C H LEWIS California & West Med 1928 xxviii 54
- The pathogenesis of eclampsia A A CASAMADA Rev méd de Barcelona 1927 i 465
- Eclampsia and the onset of cold weather in Berlin during the years 1908-1921 VOYFLEUSS Ztschr f Gell u tsh u Gynaek 1927 ci 323
- Intercurrent eclampsia with recurrence after delivery A J GUIROY Bol Soc de obst y gynec de Buenos Aires 1927 vi 450
- Convulsions and haemorrhage in eclampsia SOSA SÁNCHEZ and ROSENWAZER Bol Soc de obst y gynec de Buenos Aires 1927 vi 552
- Mental disturbances associated with pregnancy C W STONE and L J KARNOSS Ohio State M J 1928 xxiv 29
- Induction of premature labor in relation to mental disease R P SMITH Brit M J 1928 ii 0
- The activity of the placenta in the neutralization of alkaloid G DE LAURETIS and S MARTINES Arch d ostet e gynec 1927 xxviii 489
- Premature rupture of fetal membranes J L PRITCHARD California & West Med 1928 xvii 75
- Placenta previa in four successive pregnancies T MCCARTHY Brit M J 1928 ii 95
- Two new cases of uteroplacental apoplexy R MESTRE Semana méd 1927 xxvii 1273
- Hæmatoma of the ANDERODIAS Bull Soc d obst et de gynec de Par 1927 xi 670
- The normal version in the direction of the least resistance at the end of pregnancy E MUSS Zentralbl f Gynaek 1927 li 4
- Antenatal infections H B DORNBLASER J Lancet 1928 xli 111

Labor and Its Complications

- The preventive frame of mind in midwifery R W JOHNSSTONE Brit M J 1928 ii 6
- Biological and pathology of the female genital tract of gynecology and obstetrics J HALBAN and I SFRITZ V l III 12 Obstetrical asepsis preparation for labor and obstetrical operations M BRICKEL 1927 Berlin Urban and Schwarzenberg
- The justification and methods of diminishing pain during labor H NAUJOKS I tschr d Med 1927 lv Suppl
- The treatment of neglected transverse presentation F DEUTSCH Zentralbl f Gynaek 1927 li 2403
- Normal labor as a procedure in the treatment of patients with contracted pelvis H BAILEY and H C WILLIAMSON J Am M Ass 1927 lxxix 285 [399]
- A study of labor in contracted pelvis A F MAXWELL J Am M Ass 1927 lxxix 2088 [399]
- Spasmodic contraction of the bands ring IENZI Arch d ostet e gynec 1927 xxviii 51
- Dystocia due to a large fetus A BRINDI Arch d ostet e gynec 1927 xxx 547
- Dystocia due to an ovarian cyst suprapubic and caesarean section followed by a cesarean P LASTIFL Bru lli méd 1927 viii 75
- Cyst of Bartholin's gland causing dystocia HENROTAY Bull Soc d obst et de gynec de Par 1927 xvi 136
- Dystocia due to a tumor of the parathyroid gland epithelioma of the ovary G T LASTRA Bol Soc d obst y gynec de Buenos Aires 1927 i 475
- A leiomyoma of the vagina complicating labor in primipara A SORACI Clin ostet 1927 xix 613
- An obstetrical icterus L G BARTON W F CALDWELL and W E STUDDIFORD Am J Obst & Gynec 1928 6
- Torsion of the uterus during labor H KOHLER Zentralbl f Gynaek 1927 li 2413
- Inversion of the uterus C L LINDER Lancet 1928 cc iv 18
- Abdominal position in acute inversion of the puerperal uterus J I HUNTINGTON F C IRVING J F S KELLOGG Am J Obst & Gynec 1928 xv 34 [401]
- The force of the uterus I RUSH Duodecim 1926 xli 559
- Mitochondria and low caesarean section SNOECK COCK HENROTAY CHEVAL and SCHOCKERT Bull Soc d obst et de gynec de Par 1927 xvi 689

- The evaluation of renal function tests G J FEARL
K G MOWAT and W H KROMBEIN Med J & Rec
1928 xxviii 79
- Renal insufficiency and frailty F COSTA Arch
Soc med de Valpa also 1927 1 475
- The urea test in ureteral catheterization B RADO
and I DEUTSCH Ztschr f urol Chir 1927 xvi 377
- Alkalies and renal injury E J STIEGLITZ Arch Int
Med 1928 xli 10
- Observations on injections of the renal pelvis with spe-
cial reference to the question of pyelovenous back flow
H H GILE J Urol 1927 xviii 6 1 [404]
- The mechanism of the formation of hydronephrosis and
hydro ureter W M SPITZER Colorado Med 19 8
v 8
- Hydronephritis with the a otomic syndrome M
SECRÉTAN J durol méd et chir 1927 xvi 2 3 [404]
- Two cases of staphylococcal nephritis GUILLEMINET
Iyon chir 1927 xiv 617
- Nephrolithiasis W J ALDRICH J Kansas M Soc
1928 xxviii 17
- Surgical syphilis of the kidney S A BROFELDT Acta
Soc med Fennicae Duodecim 192 viii 13
- The history of renal tuberculosis L PAPIN Arch d
mal d reins et d organes génito urinaires 92 iii 89
- A case of conjugal renal tuberculosis J SALIERAS
Semana med 927 xxvii 1364
- Considerations upon a case of secondary renal tubercu-
losis with hæmaturia J GUYOT and H BLANC J de méd
de Bordeaux 9 7 civ 7 8
- Two observations of polycystic kidneys SÉJOURNET
Bull et mém Soc d chirurgiens de Par 1927 ix 6 4
- Hydatid cysts of the kidney A VON DER BECKE A
Dt G6 and S REY Semana méd 19 7 xxvii 1186
- Hydatid cysts of the kidney A VON DER BECKE A
Dt G6 and S REY Rev Soc de méd interna y Soc de
tisiol 19 iii 458
- The unusual occurrence of two types of tumor in one
kidney Nephroepithelioma and sarcoma J UJHELY
Zt chr f uol Chir 1927 xviii 85 [404]
- Sur ery of the kidney V C HUNT J Iowa State M
Soc 928 xviii 13
- Renal surgery—its pitfalls and complications C P
MATHÉ Calif nia & West Med 1928 xxviii 57 [404]
- The so called compensatory hypertrophy of the kidney
CATELIER Bull et mém Soc d chirurgiens de Par 1927
ix 7 4
- Röntgenographic measurement of the compensatory
hypertrophy of the kidney remaining after nephrectomy
H MERZ Arch d mal d reins et d organes génito
urinaires 927 iii 126 [405]
- Dilatation of the ureter in the male autopsy findin s
W J CARSON Am J Surg 927 iii 545 [405]
- A case of double ureter with calculi in each channel
R ST I BROCKMAN Brit J Surg 1928 xv 521
- A large ureteral calculus J C JEFFERSON Brit M J
1928 ii 14
- The diagnosis and treatment of ureteral stone A I
MAJANZ Ztschr J ur l Chir 927 xii 293
- The treatment of ureteral stone with hypophysis
INIZIO Zentralbl f Chir 1927 liv 2089
- Instruments for the endo ureteral removal of stones
GOTTLEIN Zentralbl l Chir 92 li 2 89
- Bladder Urethra and Penis**
- The automatic bladder G W ROBINSON J Missouri
State M Ass 1928 xvi 15
- Bladder wounds with very slight symptoms H KOTLO
MEI J durol méd et chir 19 7 xxi 286 [405]
- Cystography B H HAGER and W F BRAUSCH Surg
Gynec & Obst 19 7 xiv 502 [406]
- Hæmaturia due to vesical varices associated with a
pelvic varicocele resection of the varicocele cure F
BILGER J durol méd et chir 1927 xvi 294 [406]
- The importance of cystitis as a symptom of surgical
lesions of the urinary tract S C MCCOY Kentucky
M J 19 8 xxvi 4
- Foreign body in the bladder A R THOMPSON Brit
M J 19 8 1 51
- A thermometer in the bladder M L LEVY J Am M
Ass 1928 c 115
- The formation of vesical calculi B H HAGER and
T B MACVINT J Am M Ass 1928 xc 266
- An enterolith suggesting a vesical calculus JECK Ann
Surg 1928 l xxvii 154
- Observations on vesical diverticula carcinoma in a
diverticulum the mechanism of filling of a diverticulum
H G PRESCINER and A CZEPA Ztschr f urol Chir
927 xvii 1
- Vesical bilharzia double infection with schistosoma
hematobium and schistosoma mansoni H FAIRBAIN
Brit M J 9 4 1 52
- Contracture of the cervical neck S F KRAMER Med
J & Rec 928 cx ii 9
- Disturbances of urination due to mechanical obstruc-
tions in the region of the neck of the bladder without
post tic hypertrophy B CHOZOFF Ztschr f urol
Chir 927 xiii 1
- A convenient method for cleansing the meatus prior to
catheterization J R MILLER J Am M Ass 1928
c 292
- Gradual decompression of the bladder with a ureteral
catheter W W SCOTT J Urol 928 xi 8 [406]
- Influences of various drugs on the intra l pressure of
the bladder S UCHIDA Jap J Obst & Gynec 192
v 47
- The treatment of tumors of the bladder with physical
agents E BEER J durol méd et chir 927 xiv
327 [406]
- The treatment of tumors of the bladder by means of
surgical diathermy A G FLEISCHMAN J Iowa State
M Soc 1927 xviii 1
- Modern method of treatment and results in cancer of
the bladder B LEWIS and G CARROLL Texas State
J M 19 8 xviii 574
- Cancer of the bladder treated with radium cure of
seven years duration R INGEBRIGTSEN Bull et mém
Soc nat de chi 927 li 1 1297 [407]
- Suppuration of cystitis G GREENBERG Med J &
Rec 928 c vi 89
- Ruptures of the urethra and automatic urethral stric-
tures A PELKONEN Acta Soc med Fennicae Duodecim
927 iii 1
- Urethral upure and automatic stricture of the urethra
A PELKONEN Acta Societatis Med Fennicae Duode-
cim 927 viii 1
- Excising inflammatory structure of the urethra re-
peated circulatory ethrorrhaphy hypog stric derivation of
urine recovery J SALLERAS Semana méd 1927 xxvii
120
- No specific urethritis in the male W R JONES
Northwest Med 1928 xi 1 43
- Acute anterior gonorrheal urethritis cured with acn-
fla ine M I BOYD J Urol 1928 xix 89
- A bulbar cure for applying zinc ization to the male
urethra C F O WHITE and B B SHARP Brit M J
1928 i 96
- Urethral pathology in women W S PUGH Inte nat
J M d & Su g 928 xli 15

- Chronic osteitis simulating osteogenic sarcoma case report H K TAYLOR Radiology 1928 x 6
- The diagnosis of acute osteomyelitis C A CALDWELL New Orleans M & S J 19 8 lxxx 429
- Chronic osteomyelitis PERAIRE Bull et mcm Soc d chirurgiens de Par 1927 xix 635
- A study of chronic osteomyelitis based on five personal cases H JUDET Bull et mcm Soc d chirurgiens de Par 1927 xix 597
- Multiple myeloma H W MEYERDING Sug Chin N Am 19 7 vii 1442
- Multiple myelomata in a child of seventeen months ABALLI An Fac de med y farmacia 1927 i 13
- Metastases of the bone in primary carcinoma of the lung a review of so-called endeli mata of the bones E F HIRSCH and E W RYERSON A ch Surg 1928 xvi i [410]
- Unusual bone changes caused by a small primary bronchogenic carcinoma H B THOMAS F F HIRSCH and E S BLAINE J Am M Ass 1928 c 89
- Surgical diseases of the bones and joints local processes systemic diseases SINDAMGROTZKY Beihefte z Med Klin 1927 xxiii 134
- The articular mechanism of the diathroes T WALN LEY J Bone & Joint Sug 1928 40 [411]
- A case of psoriasis with arthropathy L PERACCHIA Clin y lab 1927 xiii 358
- Bismuth in the apy of chronic articular rheumatism C Speco Policlin Rome 1927 x sez prat 1609
- The etiology of chronic arthritis R L CECIL South M J 1928 xii 20
- Non specific arthritis with the complete clinical picture of tuberculousis FRIEDRICH Zentralbl f Chr 9 7 liv 2463 2466
- The relation of the surgical pathology of the lower quadrant to arthritis R SURIN J Bone & Joint Sug 1928 x 57 [411]
- Surgical lesions of the right lower quadrant demonstrated in patients with chronic deferring arthritis by x-ray opaque meal examinations R G TAYLOR J Bone & Joint Sug 1928 x 62 [411]
- Gonorrheal arthritis B A THOMAS J Am M Ass 1927 lxxvix 2174 [411]
- Oxybenzoate acid in the treatment of arthritis W C SERVICE J Indiana State M Ass 19 8 xi 5
- Oxybenzoic acid in the treatment of infectious arthritis report of eighty additional cases J B YOUNG Ann Int Med 19 8 i 494
- Deforming joint diseases of childhood NATZLER Ztschr f orthop Chr 1927 xlviii 502
- Primary chronic osteomyelitic foci in the vicinity of joints FRIEDRICH Zentralbl f Chr 192 liv 465
- Giant cell tumors with lipoid cell and iron pigment in the tendon sheaths C M DOMINGUEZ An Fac de med Univ de Montevideo 19 7 xii 38
- Muscle injuries in sport G KOENBURG Arch f Klin Chr 19 1 ii 395
- Sport injuries to the organs of locomotion W BAETZNER Med Klin 19 7 xxiii 173 559 606 1226 1305 540 1619
- Some disabilities of the shoulder region A GIBSON Canadian M Ass J 1928 x iii 30
- Some considerations of second type arthritis exemplified in the shoulder joint A J FISHER J Bone & Joint Sug 1928 x 46 [412]
- Tuberculous arthritis of the shoulder joint C I WAKLEY Proc Roy Soc Med Lond 1928 i 436
- Paralysis of the trapezius and some remarks on the movements of the shoulder K M WALTHER Schweiz med Wchn chr 1927 li 688
- Concital absence of the humerus S A SMITH Brit J Sug 1928 xv 385
- The treatment of tennis elbow G P MILLS Brit M J 9 8 i 1
- Concital permanent pronation of the forearm J T MURKUS Ztschr f orthop Chr 19 7 xlviii 375
- Necrotic foci in necrosis of the lunatic bone lunatic case of K ENBOECK I GOLD and A WINKELBAUER Arch f Klin Chr 19 1 ii 510
- The diagnosis and after treatment of severe infections of the hand S L KOCH J Kansas M Soc 1928 xviii 10
- Infections of the hand L H MCKIM Canadian M Ass J 1928 xvi 1
- Congenital familial atrophy of the nail A L WALTER and W L BRADFORD J Missouri State M Ass 1928 x 10
- Cervical rib A W ANDERSON Atlant c M J 1928 xxvi 2
- Giant cell tumor of the cervical spine M CHURCHILL Chir d o lan di movement 1927 vi 55
- Postural defects and coliosis T SCHNEDE Klin Wchnchr 9 1 ixc 908
- The treatment and treatment of scoliosis FARRAS Ztschr f orthop Chr 1927 xli 1 3 160
- The etiology and treatment of scoliosis DREHMANN Zentralbl f Chr 9 li 2 4
- Continuous traction in the treatment of spinal conditions notably scoliosis C L L LOWMAN J Bone & Joint Sug 1928 x 4 [412]
- The correct position of the patient for the application of a plastic cast for scoliosis M LANGE Ztschr f orthop Chr 1927 liii 366
- Complications of the vertebral bodies by tetanus G PUSCH Ztschr f orthop Chr 19 7 liii 446
- Complications of the spine A SCHWAB Ztschr f tschech sl orthop Gesell h 9 7 i 544
- The symptom of muscular delineation in tuberculous spondylitis P G KORNEN Zentralbl f Chr 19 li 20 3
- Confusion between tuberculous spondylitis and Kummell's disease in damage to the spine I HEILIGTAT M nats chr f Unfallh ilk u Ve sicherun smed 19 xvi 162 0
- Aetiological case (Kummell's disease) followed by an accident W BRANDIS Med Klin 1927 iii 1 25
- Conservative treatment of spinal caries Brit M J 1928 i 55
- Sacralization in coliot sciatica V BARTO Ztschr d tschech l wak orthop Ces li ch 9 ii 6 0
- In the back J M BURKE Internat J Med & Surg 19 8 b 3
- The diagnosis of a limp H A T FAIRBANK Lancet 19 8 c i 9
- Eudocovale in a girl aged five years C P G WAKLEY Proc Roy Soc Med Lond 1928 x i 437
- Tuberculois of the hip A DEL SMITH and W H WATERS J Am M Ass 9 8 xc 89
- The apy in joint tuberculosis A ROLLIER Sug Gynec & Obst 19 8 i i 95 [413]
- Some types of coarctation S A BROFELDT Duod cim 19 li 423
- Fracturation of the neck of the femur O F SCHULZ Ztschr d tschechoslovak orthop G selch 192 ii 633
- Fibrous cystic disease of the femur C I G WAKLEY Proc R J Soc Med Lond 9 xi 67 [415]
- Osteomyelitis of the femur distal, sclerotic H W MEYERDING Sug Clin N Am 1928 i 436
- Sarcoma of the femur I I DICKINS and G G HERMAN U S A M Bull 19 8 x 3

The technique in the use of grafts in cases of non union of fractures F J CORROD J Bone & Joint Surg 1928 x 94 [420]

Recurrent dislocation of the shoulder M K SMITH Ann Surg 19 8 lxxvii 145

Epiphyseolysis of the humerus with considerable dislocation of the head closed reduction G DINT Arch Orthop u Unfall Chir 19 7 xxv 34

Fractures of the humerus F G DYAS Illinois M J 1928 lvi 30

Fractures about the elbow joint P H KREUSCHER Illinois M J 1928 lvi 41

Isolated luxation of the upper extremity of the radius I PRINZ Bol inst de clin quir 1927 iii 915

Dislocation of the head of the radius a suggestion for a new operative procedure H MICHU J Bone & Joint Surg 1928 x 99 [423]

An unusual type of wrist injury a contribution to the mechanics of triquetrum fracture W LATTEY Zentralbl f Chir 1927 liv 2380

Spinal fractures an analysis of the end results in 100 cases A THOMAS Colorado Med 1928 xxv 9

Old fracture of a transverse lumbar apophysis with ex tention A JOHNSON Bol Soc de cirug de Chile 19 254

Early treatment of congenital dislocation of the hip A PUTT Arch ital di chir 1927 xiii 653 [420]

Ununited fracture of the hip with fibula used as a bone graft H W MEYERDING Surg Clin N Am 9 vi 1433

A flexed plaster spica case for hip fractures C A MOORE Ann Surg 1928 lxxvii 11 [420]

Early motion in the treatment of separation of the lower femoral epiphysis A S GRISWOLD J Bone & Joint Surg 19 8 x 75

Fractures of the neck of the femur J C WALLER Ohio State M J 19 8 xiv 26

Isolated fracture of the lesser trochanter O FRIZ Arch ital di chir 1927 xviii 669 [420]

The treatment of fractures of the neck of the femur 390 cases on the surgical service of the Municipal Hospital of Palermo O LOEBBERO Zentralbl f Chir 19 7 liv 22 22 g [421]

Late end results in ununited fracture of the neck of the femur treated by the bone peg or the reconstruction operation F H ALBERT J Bone & Joint Surg 1925 x 14 [421]

An adaptable splint for the lower extremities DEUBNER Zentralbl f Chir 19 7 liv 2765

The prognosis in fracture of the spine of the tibia C E CORRETT Med J Australia 3 8 1 114

The treatment of ankle and leg fractures by the Delbet ambulatory plaster splint F L POBERT Brit J Surg 1928 x 414

Fracture of the scapula with notes on the mechanism L P FIRMANN and I H ESKELES J Bone & Joint Surg 1928 x 108 [422]

The treatment of fracture of the os calcis by a thyroid of the subtrochanteric joint a report on twenty six cases I D WILSON J Am M Ass 1927 lxxvii 16 6 [422]

Orthopedics in General

Thirty three reports of progress in orthopedic surgery P D WILSON and T BRANNON M SMITH JETERSEN P (CHIRILEY and the Arch Surg 9 8 1 143

A hospital for the orthopedic hospital with major and minor clinics for the orthopedic district of Scotland J FRASER Edinburgh M J 19 8 xxv Med chir Soc Edinburgh 5

An atlas of the convex frame P C CLOONNA J Bone & Joint Surg 1928 x 88

A bone hold clamp C L MULLEN Am J Surg 19 8 v 5

Orthopedic supportive apparatus I JORTKOWITZ Orthopedic H I senfeld Orthopedic care of the cripple SCHWARTZ Appendix Decripte hit of apparatus 9 Berlin Holbn

Tests of the frames of plaster of Paris with various films W BADGER Ztschr f Chir 1927 xlviii 433

Experimental studies of material used for artificial ends of the femur Deutsches Ztschr f Chir 1927 cccv 508

Subcutaneous nodules of the hip under prosthetic appliances M ZUR WERTH and H VON WINKEL Deutsche Ztschr f Chir 9 7 ccv 3

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

Blood Vessels

Hæmangioma J J M SHAW Lancet 19 8 ccvii 69

Injuries of the large arteries encountered in clinical practice B LERSAUZ Surg Gynec & Obst 19 8 11 62

Coronary disease in surgical patients A T THIELS Ann Surg 1928 lxxviii 32

A case of primary sclerosis of the pulmonary artery D E BEDFORD Proc Roy Soc Med Lond 1928 xv 444

A case of coarctation of the aorta D HUNTER Proc Roy Soc Med Lond 9 8 xvi 432

Arteriovenous aneurysm F IEDELI Arch ital di chir 1927 x 98

Multiple aneurysms and thromboses F P CRISTIAN and Sir T HORDER Proc Roy Soc Med Lond 9 8 xvi 127

A case of multiple aneurysm A ALOI Ann ital di chir 1927 vi 1121

Aneurysm of the carotid artery in the cavernous sinus ligature of the internal carotid recovery F J NAYLOR Edinburgh M J 1928 xxv 30

A case of an aneurysm of the common carotid artery at the clavicle P A G MUDGAL Indian M Gaz 19 8 1 iii

Aneurysmal dilatation of the pulmonary artery in a case of congenital heart disease D F BEDFORD Ir c R y Sc Med J and 19 1 44

Report of a case of traumatic aneurysm of the arch of the aorta O GÓMEZ P de especialidades 1927 ii 899

The morbid anatomy of the aorta L CROOK Nebraska St M J 19 5 vii 9

Primary jugular lymph thrombosis 101 cases J C SCAL Laryngoscope 9 8 xvi 11 37

Femoral and thoracic lymphatic aneurysm of the abdominal aorta r p t f f e c a e M M BAXSWORTH and G H IRV Med Clin N Am 9 28 x 93

A case of the embolism of the superior vena cava I ARAVI Lib mel 92 11 50

An experimental study of the effects of ligation of the inferior vena cava in the dog at the anal end C MULLER and H BRACCHI Ann ital di chir 19 7 vi 973

- The treatment of actinomycosis of the neck with
jatron T HUENERMANN Deutsche med Wchnsch
1927 lvi 801
The use of crum treatment in anthrax Brit M J
1928 i 135
The treatment of rabies by the Italian method of car
bolated vaccine J SANARELLI Semana méd 1927 xxxiv
1421

Anæsthesia

- Preliminary medication in general anæsthesia with
special reference to the margin of safety and po toperati e
lesions of the lun- J T GWATHMEY and C W HOOPER
Arch Surg 1928 xvi 416
The scope and utility of tests for carbon dioxide tension
and acetone in the alveolar air in relation to surgery and
anæsthesia P ROTH Bull Battle Creek Sanit & Hosp
Clin Battle Creek Mich Jan 1927 xviii 5
The effects of ether chloroform and ethyl chloride
anæsthetics on the minute cardiac output and blood pres
sure an experimental study A BLALOCK Surg Gy ec
& Obst 1928 xlii 7
A container for the sterile administration of ethyl
chloride W F KATZENSTEIN Zentralbl f Chir 1927
liv 1751
Further experimental studies regarding the action of
narcotic anæsthesia on the parenchymatous organs W
SCHMITZ and F LEITNER Zentralbl f Gynaec 92
h 266

- Artin (F 107) anæsthesia for children R SIFVERS
Deutsche med Wchnsch 1927 lvi 1253
Anæsthetics used in the Mayo Clinic in 1916 especially
oil ether colonic anæsthesia J S LUNDY Surg, Clin N
Am 1917 ii 1617
The present position of spinal anæsthesia C HUGHES
Proc Roy Soc Med Lond 1927 xvi 189
Hyperæmias with spinal anæsthesia M RICHARD
Beitr z klin Chir 1927 cxi 49
Lumbar plexus anæsthesia E KLARFELD Zentralbl
f Chir 1927 l 2701
A new bayonet shaped needle for sphincter anæsthesia
LEZA An Tac de med y farmacia 1927 i 159
Isotonic sodium—normal salt solutions A PFEFFER
KORN Beitr z klin Chir 97 cxi 108
The composition of procaine borate (borocaine) G W
C LILES J Am M Ass 928 xc 25
The alleodynic action of magnesium sulphate and mor
phine H BLACKMAN Am J Obst & Gynec 1928 xv
Unterschiede der Wirkung von Narkotika und Anæsthetika J L
YATES and F RAIN Ann Surg 1928 lx ii 124
Disturbances and injuries due to anæsthesia 1087
klin Wchnsch 97 vi 764

Surgical Instruments and Apparatus

- Utilization of sharp instruments M H Porter Am
J Ophth 1919 i 35 b

PHYSICO-CHEMICAL METHODS IN SURGERY

Röntgenology

- The position of röntgenology a study of the use of the
röntgen ray in practice investigation and teaching G
HOLZNER 1927 Vienna Springer
Röntgen diagnosis in surgery and allied fields H
MEYER 1927 Berlin Springer
Handbook of irradiation biology pathology and treat
ment P LAZARUS 927 Munich Beermann
On running conditions of therapy tubes R THORAFUS
Acta radiol 1927 viii 462
The effect of röntgen irradiation on nitrogen disodium
chloride metabolism experimental studies A JUCENBURG
Strahlentherapie 1927 x 288
Hourly variations in the effect of equal röntgen ray
doses on the growth of vicia faba seedlings M C
REINHARD and K L TUCKER Am J Roentgenol 1928
xvi 71
A biological measure of X-ray dosage C PACKARD
J Cancer Research 92 xi 28
The standardization of the röntgen ray dose O
GLASER and U V PORTMANN Am J Roentgenol 1928
xvi 47
The influence of the diaphragm on the applicability of
the inverse square law to X-ray dosage E H QUIMBY
and W C SARGENT Radiology 928 xi 1
The effect of absorption on the relation between exposure
and the biological effect of radiation in H M TERRILL
J Cancer Research 1927 293
Results of the collection of new records and
figures following röntgen radiation in German clinics H
LOSSEN Acta radiol 1927 viii 345

Radium

- Radium in adequate dosage in the treatment of cancer
D QUICK J Am M Ass 1919 xiv 2035
Inoperable sarcoma treated with radium P WARD
Brit M J 928 23

Miscellaneous

- Coordinated physical therapy W F MARTIN Bull
Battle Creek Sanit & Hosp Clin Battle Creek Mich an
1918 xviii 14
The scientific basis of the practice of medical hydrology
I C E CALTHROP Proc Roy Soc Med Lond 928
xvi 477
The transmission and bactericidal action of sunlight
through various substances C L RODERICK and J K
SMITH Bull Battle Creek Sanit & Hosp Clin Battle
Creek Mich a 1928 xvi 56
Two cases of injury to the skin from tripaflavin with
intensive exposure to the sun I NOLTING Muenchen
med Wchnsch 1927 lx i 149
The penetration of ultra violet rays into living animal
tissues D I MACH W T ANDERSON JR and I K
BELL J Am M Ass 928 c 161
The action of ultra violet radiation on the bactericidal
activity of the blood J I GOUGH JR and K KASSO
Wirtz J Am M Ass 1928 c 80
Ulcer caused by diathermy A DELANEY Mel J
Australia 928 i 16
Physical therapeutics and radiography during 1927
A B HIRSH Med Times 1919 i 13

JUNE 1928

International Abstract of Surgery

Supplementary to
Surgery, Gynecology and Obstetrics

EDITORS

FRANKLIN H. MARTIN Chicago
SIR BERKELEY MOYNIHAN KCMG CB Leeds
PAUL LECENE Paris

SUMNER L. KOCH Abstract Editor

DEPARTMENT EDITORS

| | |
|---------------------------------------|---|
| EUGENE H. POOL General Surgery | LOUIS E. SCHMIDT Genito Urinary Surgery |
| FRANK W. LYNCH Gynecology | PHILIP LEWIN Orthopedic Surgery |
| JOHN O. POLAK Obstetrics | ADOLPH HARTUNG Roentgenology |
| CHARLES H. FRAZIER Neurologic Surgery | HAROLD I. LILLIE Surgery of the Ear |
| F. N. G. STARR Abdominal Surgery | L. W. DEAN Surgery of the Nose and Throat |
| CARL A. HEDBLÖM Plastic Surgery | ROBERT H. IVY Plastic and Oral Surgery |

CONTENTS

| | | |
|-----|--|----------|
| I | Index of Abstracts of Current Literature | iii |
| II | Authors | ix |
| III | Editor's Comment | x |
| IV | Abstracts of Current Literature | 447-512 |
| V | Bibliography of Current Literature | 513-536 |
| VI | Index to Volume XLVI | 1-xxviii |

Editorial communications should be sent to Franklin H. Martin, Editor, 54 East Erie St., Chicago.
Editorial and Business Offices: 54 East Erie St., Chicago, Ill., U.S.A.
Publishers for Great Britain: Baillière Tindall & Cox, 8 Haverstock St., Covent Garden, London, W.C.

CONTENTS—JUNE, 1928

ABSTRACTS OF CURRENT LITERATURE

SURGERY OF THE HEAD AND NECK

- Eye**
- BROWN E V L Sight Saving Class Work from the Standpoint of the Ophthalmologist 447
- BEIGELMAN M N The Pathology of the Lachrymal Glands in Chronic Epiphora 447
- VERRY C D and HALBERTSMA K T A Two Cases of Parinaud's Conjunctivitis 447
- TOOKE F T Some Features of Glaucoma Complicating Iridocyclitis 447
- JACQUES L Cataract and Postoperative Tetany 447
- FORTIN E P Does the Fovea Undergo Changes During Accommodation? 448
- CALHOUN J P Angioid Streaks of the Fundus Oculi 448
- GRISCOMBE J M Angioid Streaks of the Retina 448

- Ear**
- MC CREADY J H Mastoiditis in Infants 448

- Neck**
- TROELL A The Azocarmine Mallery Staining of Gouters 449
- RIENHOFF W F JR and LEWIS D The Relation of Hyperthyroidism to Benign Tumors of the Thyroid Gland 449
- THOMAS H M JR Nodular Goiter with Hyperthyroidism 449
- HAINES S F Certain Difficulties in the Diagnosis of Exophthalmic Goiter 450
- WALTON A J The Treatment of Exophthalmic Goiter 450
- DUNHILL T P Anesthesia in Surgery of the Thyroid Gland 451
- CHAMPION A N Acute Stenotic Laryngitis of Infectious Origin 451
- ARAÚZ S L Contribution to the Study and Treatment of Laryngeal Papillomata in Children 452

SURGERY OF THE NERVOUS SYSTEM

- Brain and Its Coverings Cranial Nerves**
- MAGNANT J S Traumatic Cerebral Hernia 453
- BALADO M MOREA R and DONOVAN C Roentgenography of the Third Ventricle 453
- BRAIN W R The Use of Hypertonic Solutions in the Treatment of Increased Intracranial Pressure 453
- PANCOAST H K Experience in the Treatment of Brain Tumors by Irradiation During the Last Thirteen Years 453

- PUEENTE J J ORLANDO R and DOWLING L Morvan's Syndrome Unilateral Pachymeningitis and Arachnoiditis Intraspinal Lipiodol 454
- RIVIERE M Presentation of Children Who Were Suffering from Meningeal Hemorrhage at the Time of Birth 488

Spinal Cord and Its Coverings

- ELSBERG C A E Intradural Spinal Tumors—Primary Secondary Metastatic 454

Peripheral Nerves

- TOWNE E B The Prevention of Injury to the Musculospiral Nerve 455

Sympathetic Nerves

- SIMEONI V Periarterial Sympathectomy in Freezing 455
- REYNOLDS F C and SLATER J K A Study of the Structure and Function of the Interstitial Tissues of the Central Nervous System 456
- RAMÍREZ CORREA Vital Staining of Del Rio Hortega's Microfilia and Its Application in the Diagnosis of Focal Processes and Tumors of the Central Nervous System 456

SURGERY OF THE CHEST

- Trachea Lungs and Pleura**
- LEE W C and TUCKER G Postoperative Pulmonary Atelectasis 457
- RIST E and SOULAS A The Technique of Bronchography with Iodized Oil A Case of Unrecognized Bronchiectasis 457
- CUTLER E C The Etiology of Postoperative Abscess of the Lung 458
- Esophagus and Mediastinum**
- MORSE J L The Thymus Obsession 458

Miscellaneous

- CHAPMAN J F The Value of the Lateral Exposure in the Roentgen Examination of the Chest 459
- BOOTHBY W M and HAINES S F Oxygen Therapy 459

SURGERY OF THE ABDOMEN

- Abdominal Wall and Peritoneum**
- ROCQUES F An Endometrial Tumor of the Umbilicus 460
- LUGINBUHL M Operative or Conservative Management of Tuberculosis of the Peritoneum 460

McWHORTER G L T so of the Ome tum with
out H ia Repo t of Tw Ca es
SEYMOUR H F A Ca f Pncum co cal P ton t
During th Puerp r m with R co ry

Gastro Intest nal Tract

BREITAO F E V l u l s f th Stom h
CHO SY R d B IAN L A C t b t t the
St dy of V l l f the St ma h
N CAEL A C nd HUFF RD A R El ct e Local
izati n f St ptoc Isol t d fr m C s s f
P p t c Ul

R i s LL V J Th M h m of P Pod to
Abd m l v s c l D e th Sp l
R f en t the P P p t c Ul
N M H Th f l m m a t r y a d T Fat s
i th P th o l o y of G str d od l Ulc with
P t c l R f en to the Th o y f P t m
D m p o t n

N Y ROM G P p t c Ul r After Ext R
e t n f th Stom h

S A C J j al d G t j j l Ulc rs
IAH V F II a d JORD V S M Gast j j u l
Ulc a d G t j e j l F t l e

HAR STY R H M On th T atment f G st c
Ul

T F B The Amb l t ry T me t f Pept c
Ul

M cLE N H JONE I d F l d s C The C e
f G st d D d n al Ul by I t e
Alk l m T m t n t

PAM UR R nd S c v f Exp t the
Su g al Tr m t of G t d D d n l
Ul

W s J H Tle T d f G stric S gery
HAR M V H Th L t R l t f G t o f t
o t m y C f Ule f th Le C
t f th St m h

REISC A U R Th J al C e f Dy t
Eat us D tly S d r v to G t f t o
t m y f t G t R t o fo Ulc
f th St m h

T HE M R M Deg t t e r o t m a z t
PERM F The A d t y f th Stom h F l l w m
Ga t R ct

COSAC SCO d B s R p t e d I t t n l Ob tru
t

HO O K A r z W C nd MANV F C In
t t l Absorpt o A S h f a Low R du
Det

N VARRO Th C e f D od l C m p s
LII O E L P p t of th B l t the D o
denoju l juncio

CAUDIER H P f at f the D od m Ul
o Tra mat ? G n al d P nt nt
Mik l z D a g th O ly T m t Re
e y

GOE EL H u f th Aff t Loop Aft r R ctio
of th St m h fo D od n l Ulc a d M g
d ode um

P ULSON M Ch Ulc rati C hts w th R f
r ne to B t l Etol gy Experimental
St dies

47

47

47

BIANCHI G Ad oc ranomata f the Crcum 47
W KELEY C P G d G ADSTONE R J The
Relat Freque y of Va P s t s of the
487 Verminform App d as As ta ed by an
A l y i f 5 000 C s

47 LEHMANN H Ac t App nd c t n the Aged
47 MEUL ÈRE J V cularizatio f the T s of the
Left Pa t of the Colo It S rgical Appl c t

472 M CHL c C C The Sympt m of C n e r of th
R ct m

472 ALLEN J H Th D o of C f the R ctum
472 P EI D B Th Ch c f Ope t n C c i
oma of the R t m

472 So ul R Th Op t f H H rtm n Ab
domi al E t r p a t n f Ca cers f the Uppe
Pa t f the R ct m d of th Re t s m d
Ju t

472

472

472

472

472

472

472

472

472

472

472

472

472

472

472

472

472

472

472

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

GYNECOLOGY

467 Uterus
467 KUPFEROT R n l M LE E G J Biochemical
St d sof H m n S me d l t s R i t t th
Mu f th C r v i x Ut

468 HERTZ K A E D f dat f th Ut ru a
Co t u M as re i My mat a d Hyper
pl f th Endometri m

468 HIE MAN J R dolomic lor Operat e Tre tm t f
C f the Ut ru

469 C ZANO N R d m Th py f Ca c of the
Ce vl of the Uteru

469 C A Z F d R r f o A H R s l t s f Deep
R ntge Th py C of th Ut ru
D g P nod f F v e Y e rs

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

47

- HIRST B C Ovarian Dysfunction Dependent on Abnormalities of the Ductless Glands 479

OBSTETRICS

Pregnancy and Its Complications

- DODDS G H An Analysis of the Results of the Wassermann Reactions Obtained from 2000 Consecutive Pregnant Women 480
- LANDA P A Pregnancy Labor and the Puerperium in a Case of Hemophilia 480
- LICPMANN W Abdominal Pregnancy Following Supravaginal Amputation of the Uterus 480
- POLAK J O The Influence of Fibroids on Pregnancy and Labor 480
- BUE V Indications for the Interruption of Pregnancy 482
- MUSSEY R D Toxemia of the Later Months of Pregnancy Its Prophylaxis and Treatment 483
- PARAMORE R H Chronic Nephritis Accidental Hemorrhage and Eclampsia 483
- MUSSEY R D and CRANE J F Operations of Necessity During Pregnancy 484

Labor and Its Complications

- GIBBONS R A The Causation of the Onset of Labor 484
- VAN AUKEN W B D Morphine and Magnesium Sulphate Infiltrations and Colonic Ether Installations in Thirty Nine Consecutive Labor Cases 484
- BOUVEN P A Case of Rupture of the Aorta During Labor and a Case of Defect of the Septum 485
- RASCOT Delivery Expedited by Means of Large Median Anterior and Posterior Incisions Made in the Cervix at the Onset of Dilatation Because of Fetal Distress 485
- RASCOT Three Cases of Median Anterior and Posterior Incisions Made in the Cervix in the Course of Labor Prolonged by Rigidity of the Cervix 485
- OUTLE G Five New Cases of Subcutaneous Exteriorization of the Uterine Incision After Late Cesarean Section 486
- GARIPUY Six Cases of Hemorrhage Following Delivery Which Were Treated by Clamps Left in Place 486

- BREHM W and WEITRAUK II V Separation of the Symphysis Pubis During Labor 486

Puerperium and Its Complications

- ZILLBOORG G Malignant Psychoses Related to Childbirth 487
- SEYMOUR II F A Case of Pneumococcal Peritonitis Dunn the Puerperium with Recovery 487
- LATZKO W The Surgical Treatment of Puerperal Processes 487

Newborn

- RIVIERE M Presentation of Children Who Had Meningeal Hemorrhage at the Time of Birth 488

Miscellaneous

- FritzGIBBON G Some Points in Obstetrics for Reconsideration and Possible Revision 488

- RHENTER J Separation of the Mother and Child and Means of Preventing It 488

GENITO URINARY SURGERY

Adrenal Kidney and Ureter

- PARAMORE R II Chronic Nephritis Accidental Hemorrhage and Eclampsia 483
- MACKENZIE D W and HAWTHORNE A B Unilateral Renal Aplasia 490
- DELZELL W R and HARRAH F W Eleven Cases of Puptured Kidney 490
- CUMMING R E Polycystic Kidney Disease 491
- THOMAS G J and KINSELLA T I Some Data Concerning the Clinical Course of Renal Tuberculosis 491
- FISCHER A Malignant Tumors of the Kidney in Childhood 492
- CROSBIE A II Secondary Nephrectomy 492
- KRAMER S E Observations on the Rate of Ureteral Recanulation Preliminary Report 49

Bladder Urethra and Penils

- GREENE L B Traumatic Rupture of the Urinary Bladder in Children 492
- CABOT II Catheter Cystitis—A Misnomer 493
- OPMOND J K Diversion of the Urine in Intractable and Incurable Vesical Tuberculosis 493
- HAGER B II and MACGATH T B The Formation of Vesical Calculi 493
- KREUTZMANN H A R The Cause of Renal Back Pressure in Obstructive Lesions of the Urethra and Bladder Neck 493
- BAILEY II Rupture of the Urethra 494

Genital Organs

- ALVEY E P Vasoligament a Preventive of Epididymitis before and after Prostatectomy 494
- COLLINGS C W Electrotome Excision of the Prostatic Bar 494
- HUNT V C Posterior Excision of the Seminal Vesicles 495
- KILFOY E J Teratoma of the Testicle—Diagnosis and Treatment 495

Miscellaneous

- BANDLER C G and KILLIAN J A The Practical Value of Chemical Analysis of the Blood in Urological Conditions 495
- COCKAYNE E A HARE D C LEPPER E II MARTLAND M and Others Discussion on the Treatment of Pyuria in Children 496
- STEVENS W E Unusual Urinary Calculi 496
- BRAASCH W F and HURLEY M V Granulomata in the Urinary Tract 497
- LOWISLY O S The Relief of Congenital and Traumatic Incontinence of Urine by Operation 497

SURGERY OF THE BONES JOINTS MUSCLES TENDONS

Conditions of the Bones Joints Muscles Tendons Etc

- SUTHERLAND C G The Differentiation of Osteitis Deformans and Osteoplastic Metastatic Carcinoma 498

- GROSS IAN J C n n t i R d U l r Syno t s 493
- Surgery of the Bones Joints Muscles Tendons Etc**
- BRI TOI W R A throd 498
- GRA H T Th Stab l i z t n of the Flal L g 493
- Fractures and Dislocat ons**
- HEY CR T L S E W Dam est B a d k pu tat n 499
- WLR N A L D B A C t but n t th R ntg n D no of Ep phy e f S p t 499
- R FRT E I Th T tm t f Ankl nd Le F at t by the Delb t Amb latory Pl t Splnt 499
- SURGERY OF BLOOD AND LYMPH SYSTEMS**
- Blood Vessels**
- BONN P A C e f R p t e f th A t Du Labo nd C of D f t of the S p t m 48
- PEIBE OV J DE J A teri u l m 500
- FE LI F A t o n A m 500
- MXCO O P A t ven A u ms 500
- L CEVE A t s Ane sm 5
- YAT W M Acq ed A te eno s F tula 5
- LERICH R Trau m t Arte ous A ur ms of th Lamb 5
- LU Y Th T tm to f A t e us An ms 5
- GRÉGOIRE R The Th pe t c I deat Ar t e s A u m f m th St dpo t of Th r P thol g cal Anat my 5
- MI UL G d BR cci Torsi H A Experime t l Study f th Eff ts f De dat n of the I fe A e C at Its B gnnm t the R lve 5
- MOSKOW C L Th T tm nt of V r o Veins with S I j ctio Comb ed with Ve o s L to 5
- CANT O O F lm nt Po tope at e Embol m KEY C Embol tomy a M th d of T ung Emb l Fu tual D t b s f th L t em tie 503
- ME E A W A S s f i t d l e b g Op a t o f l Embol sm f th P lm nary A tery 5
- P ARSE H E The Immed te Effect f A teri l La g t n A Exp me t l St dy 5
- STERN W G Th S lue Wheal T st M u of th Blood S pply n A ternal D tu b of th E tream ts 5
- Blood T ansfus on**
- Γ Π I J Spl e t my n P rnci us Anemi d L krm 474
- S ENC A W Th R ults f Spl t my f P r p r Hem rh gica 475
- GRA K K T d GOLD ERG M A Clinical D ta Obtain d w th the Femal S Horm ne Blood T t 478
- LAND P A P egn ncy Labo nd th P r p m m in a C of Hem philia 480
- BAND ER C G a d KILLIAN J A The Pra t l A lu of Ch mical Analys f the Blood in U o l gical C ditions 495
- BOURDE Y Z CARELL J nd DUVAL P Cho c Rec re t Ham rh c Purp ra Spl t my Re cry 5
- CR NIC ANU A AR AUD M d FLOR AN I Az tam s gery 506
- Lymph Vessel and Glands**
- D I M E C d S Y T E A M Tub ul f the C cal Lymph Node n I f cy the A lu f the R tg Ray n It D g 5
- SURGICAL TECHNIQUE**
- Operat e S gery and Technique Postope t e Treatment**
- L W E nd TUCKER G Pot p t e Pul mo ary At l t 457
- COT R E C Th Et l y f P t p atn Ab s of the L 458
- F A I G M a d TO R CA L F c t rs D te m g th Res t n f th P t nt nd D g the Rsk f Ope to 5
- SUT V H B Insd q t Ski P p rat n a a Cu of Pot p t e W u d Inf cto 506
- C ANIC ANU A A AUD M nd FLORI I Aoterm a n S gery 5
- WATER A B D nd d Su f s T at d by T n n A d 5
- FURE J L Th Mikulicz D 5
- J CAS V A S Chr nic P t perat e T tany 5
- Ant septic Surgery Treatment of Wounds and Infec tions**
- W RYBERG M Antg S rum a d It Th p ut e U G Ga g e e Appe d t Ga g e f the Lun 5
- Anesthes a**
- DUNH T P Ant th n n Thy d S ng ry 45
- V N AULEN W B D Morph e d V gnes m S ph t I f i l t nd Colon Ethr In stillatio Th ty Nme C se t L bo C 484
- G HME J T a d HOOP C W Prelim n ry Med cat o n Ge l Anesthes w th Sp c i l P f n e to the Ma n f t S fety and P t op at Les ns f the L g 5
- HUGHES C Th Pe e t P t f Spn l A l 509
- H RAHAN E M J Br chial Pl ru N rve Block 509
- B CRMAN H The All ged Syn sm of Ma n s m S fphat d M rphin 509
- Surg cal In truments and Appar tus**
- POSR M H St rilizat f Sharp I strume ts 509
- PHYSICO-CHEMICAL METHODS IN SURGERY**
- Ro tzenology**
- BALADO M MORE R d DO O AN C Ro nt ge graphy f the Thurd Ventr l 453

PANCOAST H K Experience in the Treatment of Brain Tumors by Irradiation During the Past Thirteen Years

RIST E and SOULAS A The Technique of Bronchography with Iodized Oil A Case of Unrecognized Bronchiectasis

CHAPMAN J F The Value of the Lateral Exposure in the Roentgen Examination of the Chest

CARRANZA F and ROFFO A H Results of Deep Roentgen Therapy in Cancer of the Uterus During a Period of Five Years

WERENSKIÖLD B A Contribution to the Roentgen Diagnosis of Epiphyseal Separations

DUNHAM F C and SMYTHE A M Tuberculosis of the Cervical Lymph Nodes in Infancy the Value of the Roentgen Ray in Its Diagnosis

Radium

HEYMAN J Radiological or Operative Treatment of Cancer of the Uterus

CAPIZZANO N Radium Therapy of Cancer of the Cervix of the Uterus

MISCELLANEOUS

453 Clinical Entities—General Physiological Conditions
MILCH H Indelible Ink Pencil Injuries 510

WEINTROB M and MESSELOFF C R Gas Gangrene in Civil Practice 510

457 WILMOTH C L Subacute Inguinal Lymphadenomatosis A Report of Twenty Seven Cases 511

459 General Bacterial Protozoan and Parasitic Infections
CASTELLANI A Notes on Blastomycosis Its Etiology and Clinical Varieties 511

477 CHRISTOPHERSON J B On the Treatment of the Actinomycosis Type of Mycetoma 511

499 BARNETT L L Colossal Hydatid Cysts 511

Ductless Glands

479 HIRST B C Ovarian Dysfunction Dependent on Abnormalities of the Ductless Glands 479

FRANK P T Endocrine Therapy 511

Surgical Pathology and Diagnosis

476 MACCARTY W C A Cytological Key to the Diagnosis and Prognosis of Neoplasms 512

BIBLIOGRAPHY

Surgery of the Head and Neck

H d
Eye
E
No d S es
M th
Ph ryn.
N ck

Surgery of the Nervous System

B nd It C C l \ es
Sp l Co d It C e in
Fe phe l N s
Symp th t N rve
M c ll eo

Surgery of the Chest

Ch st W ll d B t
T h L g d Pl
He t d P ca d m
CE oph s d M d tu m
M ll neo s

Surgery of the Abdomen

Abd mu l W ll d P t m
G t I t tnal T t
L G ll B l dd Pa d Spl
M ll neo

Gynecology

Ut ru
Ad l d P m t C d t
E tern l G tal
M ll eo

Obstetrics

P g y d It C mpl t s
L b d It C mpl t
P rperi m d It C mpl t
N wborn
M c ll s

Genito Urinary Surgery

5 3 Adenal k d y a d U t 5 8
5 3 Bl d d r U eth a d P n 5 9
5 4 G t l O g 53
5 4 M l l a eo 53
5 5
5 5

Surgery of the Bones Joints Muscles Tendons

C d t n f th Bo s J t M cl T do
F t
S rery of th Bo s Jo t M cl T do 531
F t
F t d D lo t o s 53
O thoped Ge l 533
5 7
5 7

Surgery of the Blood and Lymph Systems

Blood V l 533
Blood T sf o 533
Lymph V s l nd Gla ds 534

Surgical Technique

Ope t S g ry nd Te hniq P top t e
T e tme t
Antseps S g ry T tme t f W d d I 534
fect o 534
N x th 534
S g l l trum t d lpp tu 535
5 3

Physicochemical Methods in Surgery

R ntg ol gy 535
R di m 535
M c ll eo s 535
5 5

Miscellaneous

Cl c l E t t —G al Phy l g c l C d t 535
Ge l B te l P to o d P st c l f c 536
t n 536
D t l Gl d 536
S g l P th l gy d D 536
H p t l M d cal Ed cat nd H t ry 536
5 5
5 6
5 7
5 7
5 8

AUTHORS

OF THE ARTICLES ABSTRACTED IN THIS ISSUE

- Allen J H 472
 Alirez W C 468
 Aleya F P 494
 Arauz S L 45
 Arnaud M 506
 Auvray 501
 Babaantz L 461
 Failey II 494
 Palado M 453
 Bandl r C G 495
 Barnett L F 511
 Basset 468
 Beadle 468
 Beadle O A 474
 Beckman H 509
 Beigelman M N 447
 Bianchi G 471
 Bohnen P 485
 Boothby W M 459
 Bourde Y 503
 Braasch W F 497
 Bracci To si H 502
 Brain W R 453
 B ehm W 486
 Bretkopf T 461
 Bristow W R 498
 Brown F V I 447
 Bu c V 482
 Cabot H 493
 Calhoun J P 448
 Cintelmo O 503
 Cap zano N 477
 Carran a f 477
 Castellani V 511
 Champion V N 451
 Chapman J F 459
 Choisy R 461
 Christopherson J B 511
 Cockayne I V 406
 Coll n s C W 494
 Cosacresco 468
 Cra nicianu A 506
 Crane J F 484
 Cro bie V H 49
 Cumming R I 491
 Cutler I C 458
 Delzell W R 490
 Dodds C II 480
 Donov n C 453
 Dowli n F 454
 Dunham I C 503
 Dunhill T P 451
 Duxal I 505
 Flason F L 469
 Tl ber, C V 454
 Fasiani G M 506
 Faure J L 507
 Fedehi L 500
 Ildes G 465
 Ficher A 49
 ItzCibbon G 488
 Florian I 506
 Fortin I I 448
 Frank R T 478 5 1
 Ganpuy 486
 Caudier H 470
 Gibbons R V 484
 Cladstone R J 471
 Coebel 470
 Coldberger M V 478
 Cray H T 493
 Greene L B 49
 Grégoire I 502
 Cri com J M 448
 Grossman J 498
 Gwathmey J T 508
 Hager B H 493
 Ha nes S F 450 459
 Halbertsma K T A 447
 Hanrahan B M Jr 509
 Hardisty P H M 464
 Hare D C 496
 Harrah F W 490
 Harrin ton S W 475
 Hartmann II 467
 Haythorne V B 490
 Hertzler V I 476
 Hey Groves I W 490
 Heyman J 476
 Hurst B C 479
 Hooper C W 508
 Hosoi K 468
 Huffo I A R 461
 Hu lies C 509
 Hunt V C 495
 Hurley M V 497
 Jack on V S 507
 Jacques L 447
 Jones I 465
 Jordan S M 464
 Key G 503
 Kilfoy E J 495
 Kill an J V 495
 Kinsella T I 491
 Kinsella V J 46
 Kramer J I 49
 Kreutzmann H V R 493
 Kur rok I 476
 Lahey I H 464
 Ianda I A 480
 Lat ko W 487
 Le ene S I
 L e W L 457
 Lehmann H 47
 Lipp e F H 496
 Le iche R 50
 Lew D 449
 Lepmann W 480
 Low ley O S 497
 Lug nbuchl M 460
 Ma Ca ty W C 5 2
 Mackenzie D W 490
 Ma Lean II 465
 M gath T B 493
 Magnant J S 451
 Mann I C 468
 Martland M 496
 McC ady J H 448
 McWho ter C L 460
 Mechlin C C 472
 M ill e J 47
 Mess loff C I 5 0
 Meve V W 504
 Mulch II 510
 Milla T M W 475
 Miller F G Jr 476
 M II I C 502
 Mocquot F 500
 Morea R 4 3
 Morse J L 458
 Mos Lowic L 50
 Moyn han V B 473
 Mu ey R D 483 484
 Naumann H 46
 Na ar 469
 N ckel V C 461
 Nyst om G 463
 O lando R 454
 O mond J K 493
 Ouli C 480
 Pamperl R 465
 Pancoast II K 453
 I amore R II 483
 P ulso M 47
 Pea c H I 505
 Pembe ton J de J 500
 I erman F 463
 Heiff r D B 47
 Polak J O 480
 P t M H 5 9
 Puente J J 454
 Ramirez Corni 456
 Rascol 485
 Pei chauer 467
 Peynolds T F 456
 I henter J 488
 Pienhoff W F Jr 449
 I st G 457
 Rivi re M 488
 Robert T I 499
 I offo A H 477
 Roques F 460
 Rubin I C 478
 Schwar F 465
 Seco V C 464
 Seymour H F 487
 Simoni V 455
 Slate K 456
 Smythe V M 505
 Soula A 457
 Soupault R 472
 Spence V W 475
 Stern W G 505
 Stevens W E 496
 Suthe land C G 498
 Sutton H B 506
 Tapie J 474
 Taylor F B 464
 Thalheimer M 467
 Thomas C J 491
 Thomas H M Jr 449
 Toland C C 473
 Tooke F T 447
 Torracca L 506
 Towne E B 455
 Troell A 449
 Tucker G 457
 Van Aulen W B D 484
 Ver yp C D 447
 Wakeley C P C 471
 Walter A B 507
 Walton V J 450
 Weinber M 508
 Weintrob M 510
 W irauk H V 486
 We enskjold B 499
 W llis B C 474
 W lmoth C L 5 1
 Wool ey J H 466
 Yate W M 50
 Zillboorg G 487
 Zu arelli J 505

EDITOR'S COMMENT

THE acute surgical conditions of the abdomen that are seen so frequently particularly in the large hospitals of our metropolitan and industrial centers call for an unusual degree of diagnostic acumen and surgical judgment—diagnostic acumen that can piece together often from broken fragments of inaccurate observations told in a language difficult of understanding a logical working conception of the pathological conditions present and surgical judgment that can temper the treatment to the lowered vitality and enfeebled resistance of a patient frequently in critical condition from shock from hemorrhage or infection. Too often because of the extent of the injury, the fulminant character of the infection or the delay in seeking medical treatment the final chapter of the story is a tragic one. For that reason it is all the more gratifying to read of the successful outcome of a case of abdominal injury, such as that reported by Eliason (p. 469) so serious in character as to seem almost hopeless at the outset. This patient had sustained a traumatic rupture of the small bowel at the duodenojejunal flexure, was operated upon sixteen hours after the injury, and had eaten a meal before operation, which resulted in a flooding of the abdomen with partially digested food when the omentum and transverse colon were delivered. In spite of these handicaps and an eventration of omentum and jejunum during an epileptic convulsion six days after the operation the patient made a complete recovery.

Some years ago Kanavel described an approach to the retroperitoneal portion of the duodenum (*SURG. GYNEC. & OBST.* 1914, VIII, 484) and suggested the importance in cases of suspected visceral injury of raising the omentum and transverse colon to rule out the presence of retroperitoneal injury of the duodenum or the mesenteric vessels. In case seen within a few hours after injury a subserous discoloration from extravasated blood or a beginning hematoma just below the junction of the mesocolon and the posterior parietal peritoneum may be the only

visible evidence of a complete rupture of the retroperitoneal portion of the duodenum.

Champion's report of two cases of acute infectious laryngitis going on to a rapid and life-threatening occlusion of the air passages (p. 451) is an interesting account of another type of surgical emergency skillfully and successfully met. The question might be raised as to whether one would not be justified in the absence of a membrane of *Epithemia bacilli* and of cyanosis in waiting for the process to subside without the aid of tracheotomy, but one must agree that few conditions are more terrifying, both to parents and surgeon than the inspiratory dyspnea and retraction of the chest wall associated with fulminant infections of the larynx and trachea in young children.

Willis' discussion of congenital cystic dilatation of the common duct with the report of a successful case occurring in a twelve year old boy (p. 474) stresses the rarity of the condition and the importance of remembering the possibility of its presence in cases of recurring attacks of jaundice in childhood or early adolescence associated with a palpable tumor mass in the upper abdomen. This is further emphasized by the fact that in a number of cases the diagnosis was not made at the first operation and the chance of successful treatment thereby greatly diminished.

Lienhoff and Lewis' description of the pathological picture in the thyroid gland of seven patients with hyperthyroidism before, during and after the administration of iodine and their comparison of the picture seen in these cases with that found in a large number of cases of nodular and hyperplastic goiter with hyperthyroidism (p. 449) Key's discussion of the technique and results of emblectomy based on a group of ninety-five cases collected from the Swedish literature (p. 503) and Alvea's description of a simple method of ligating the vas to prevent the epididymitis which so frequently follows prostatectomy (p. 404) are three of many other important contributions reviewed in this month's number of the INTERNATIONAL ABSTRACT OF SURGERY.

INTERNATIONAL ABSTRACT OF SURGERY

JUNE 1928

ABSTRACTS OF CURRENT LITERATURE SURGERY OF THE HEAD AND NECK

EYE

Brown E V L Sight Saving Class Work from the Standpoint of the Ophthalmologist 1m *J Ophl* 1928 xi 3 s 118

Sight saving classes for school children were first opened in Chicago in 1919 with six pupils. Since then the enrollment has increased to 192.

In the author's opinion children with a visual handicap should not be segregated from those with normal vision unless their corrected vision is less than 20/60 to 20/70. Children with poor vision should be supplied with textbooks having large type; they require also more light, more room, and more attention from the teacher than those with normal vision.

Brown concludes that no detriment to the eyes has resulted from the sight saving class work, and that nearly all of the children in the sight saving classes can maintain their place in school and be promoted.

GEORGE P McVULIFF M D

Beigelman M N The Pathology of the Lacrymal Glands in Chronic Epiphora 1m *J Ophl* 1928 xi 3 s 25

Beigelman believes that unsatisfactory results in the treatment of persistent lachrymation may be due in part to lack of attention to the secretory portion of the lacrymal gland. The object of his article is to present observations which prove the possibility of a chronic dacryo adenitis with epiphora as the only symptom. He has examined pathologically six glands removed after sac extirpation. In four chronic inflammation of various degrees was found. Cellular infiltration was very noticeable around the excretory ducts and there were diffuse smaller areas of infiltration in the interlobular and interacinous connective tissue.

The distribution of the infiltration suggested extension of the inflammation by direct continuity from the subconjunctival tissue. Beigelman concludes that the histopathological changes noted by

him in the lacrymal glands are sufficient to explain hyperfunction of these glands with excessive lachrymation. The treatment of such hyperfunction should consist in X ray irradiation or in surgical measures such as deep incisions, cautery puncture or extirpation of the gland to diminish the secretion.

GEORGE R McVULIFF M D

Verry C D and Halbertsma K T A Two Cases of Parinaud's Conjunctivitis 1m *J Ophl* 1928 ii 79

The authors report two cases of a condition which closely resembled Parinaud's conjunctivitis except for the blood picture. The onset was relatively acute with homolateral glandular involvement, elevation of the temperature, and enlargement of the spleen. Histological examination yielded findings resembling those described by Morax and Verhoeff. No microorganism was discovered.

THOMAS D ALLEN M D

Tooke F T Some Features of Glaucoma Complicating Iridocyclitis 1m *J Ophl* 1928 xi 3 s 97

Tooke believes that glaucoma is a symptom secondary to some other condition, systemic or ocular. He reports five cases in which it was clearly secondary. The article includes photomicrographs showing deposits of pigment and other secondary changes in the drainage angle.

LYMAN A COPPS M D

Jacques L Cataract and Postoperative Tetany 1m *J H Sc* 9 8 clxx 185

The author reports two cases of bilateral cataract occurring during the course of postoperative tetany and tabulates thirty-two cases collected from the literature. Only four of the patients were males. In nine instances the cataracts were associated with changes in the hair or nails. In most of the cases they were discovered within two years after thyroidectomy. In the author's second case there were only mild evidences of parathyroid deficiency.

under ether or ethylene anesthesia and reports that in 114 cases there were no anesthetic deaths

GEORGE R. McALIFF, M.D.

NECK

Troell A. The Azocarmine Mallory Staining of Goiters (Ueber Azocarmin Mallory Färbung an Strumen). *Arch f. Klin. Chir.* 1927, cd. 1, 754

This article is a continuation of the author's previous reports on the azocarmine Mallory staining in which he called attention to the difference in the follicle content of the Basedow goiter as compared with the colloid of the simple goiter. His material including that previously reported consisted of 161 cases. The tissue was first fixed in susa. In the diffuse goiters the color of the follicle content of the thyroid was found to vary quite consistently with the clinical toxicity of the condition. The author summarizes his findings and conclusions as follows:

Clinically toxic goiters—Basedow goiters—usually showed a blue staining and clinically non toxic goiters a red staining of the follicle contents. Variations from this tendency were no greater than possible small variations in the parallelism between the clinical toxicity and the specific morphology of the goiter.

Nodular goiters did not show this characteristic staining to the same degree but blue follicles predominated much more frequently in the toxic than the non toxic cases and red follicles predominated more frequently in the non toxic than the toxic cases. This difference in staining cannot be due to the consistency of the follicle contents alone as web like contents which usually stain red often also stain blue. A chemical basis for the difference must be considered. Not only this difference but also the findings of determinations of the hydrogen ion concentration of fluid squeezed from goiters and our present knowledge of the clinical aspects, histology and physical chemistry of goiter suggest a difference in the functional value of the follicle content of different thyroids and in different parts of the same thyroid which may lead to a better understanding of the clinical aspects of goiter and the effect of the usual methods of treatment.

CLAS (Z)

Rlenhoff W F Jr and Lewis D. The Relation of Hyperthyroidism to Benign Tumors of the Thyroid Gland. *Arch Surg.* 1928, xv, 79.
Thomas H M Jr. Nodular Goiter with Hyperthyroidism. *Arch Surg.* 1928, xvi, 117.

RIENHOFF and LEWIS studied 109 consecutive cases of nodular goiter and hyperthyroidism reviewed 910 cases of hyperthyroidism and studied 7 patients from whom sections of the thyroid gland were removed before during and after the administration of iodine.

Before the administration of iodine marked hypertrophy and hyperplasia were apparent in all cases. The glands could be divided into two groups. In one

group the acini were normal in number but increased in size and showed papillomatous infoldings and in the other group they were small and more numerous but without infoldings. These types were frequently mixed in the same gland one type predominating.

The remission induced by iodine was characterized by a change in the size and structure of the cells a decrease in the lymphocytic infiltration and increased amounts of fibrous tissue. In this stage certain areas did not fully participate in the regression forming small areas of active parenchyma whereas other areas went far beyond the average degree forming the so called involutinal bodies.

The involutinal bodies fall into three groups. Those of the first group show a formation of large epithelium lined cysts containing colloid those of the second group an encapsulated area of dilated colloid containing acini and those of the third group actual disintegration of the parenchyma. Through pressure on the surrounding lobules and an increase in the stroma these involutinal bodies suggest the appearance of fetal and cystic adenomata.

This type of involution occurred more frequently in glands with hyperplasia of the small acini type. The large type with papillomatous infoldings gave rise to areas of hyperinvolution made up largely of cysts and encapsulated areas of dilated colloid containing acini.

The clinical improvement paralleled the extent of the involution. Cases in which there were spontaneous remissions and exacerbations showed nodules which were identical with the involutinal bodies except that they were larger. During an exacerbation the epithelium underwent papillomatous infolding in the cystic and dilated acini. In the areas of hyperinvolution during an exacerbation the peripheral acini were hypertrophied and hyperplastic. During a remission these acini became more widely separated through further central disintegration of the body. The areas of hyperinvolution can be clinically detected as tumors but do not represent true neoplasms.

Of 109 severe cases of nodular goiter 8 were cases of true benign adenomata differing totally from the involutinal bodies described though the remainder of the gland showed hyperplasia and hypertrophy. In 38 cases the nodular bodies corresponded to involutinal bodies the rest of the parenchyma being hyperplastic. In the remaining 63 cases the palpable nodules represented areas of hypertrophy and hyperplasia the remainder of the gland being normal. These areas were encapsulated the thickness of the capsule usually corresponding to the duration of the disease. In older patients these areas showed besides the characteristics of hypertrophy and hyperplasia those of retrogression and involution. If these areas were shelled out or removed the hyperthyroidism disappeared clinically.

The authors conclude that hyperthyroidism is invariably associated with hypertrophy and hyperplasia of the thyroid parenchyma either in its totality or in circumscribed areas. Nodules in these

glands are due in the majority of cases to areas of regression which become encapsulated and enlarged as the disease process progresses. In a small percentage of cases the nodules represent areas of hypertrophy and hyperplasia. In another wise normal thyroid and in only a small minority of cases true benign adenomata. There is no proof that benign adenomata give rise to hyperthyroidism.

THOMAS analyzes thirty-two cases of nodular goiter associated with hyperthyroidism but without the typical picture of exophthalmic goiter. He divides these cases into two groups: those of patients below and those of patients above forty-five years of age. Eleven of the thirteen younger patients showed typical hyperplasia and hypertrophy of the thyroid gland. One patient showed a small amount of hypertrophy and hyperplasia and presented clinically a doubtful picture of hyperthyroidism. Another patient had a typical fetal adenoma involution of the gland without hypertrophy and hyperplasia and localized areas of hypertrophy and hyperplasia.

In the nineteen patients more than forty-five years of age there was much less evidence of glandular hyperactivity but on a few occasions hyperthyroidism was found in association with every instance. Eleven of these patients suffered from heart disease. Of the ten patients who received iodine three showed marked improvement, three showed slight improvement, two received no benefit and two died.

The average hemoglobin content of the blood of the older patients was 66 per cent, a third that of the younger patients 74 per cent. These estimates have been included two patients with secondary anemia. The author is of the opinion that the extra load placed on the regulation by the hyperthyroidism factors not only decompensation but also a rise in the basal metabolism. He believes it probable that there is a close parallelism between the amount of hypertrophy and hyperplasia of the thyroid gland and the severity of the symptoms of thyrotoxicosis. F. S. M. R. M. D.

Halmes S. F. Certain Difficulties in the Diagnosis of Exophthalmic Goiter. *J. I. St. M. S.* 98, 3.

Exophthalmic goiter is a term which is defined as a disease so called with stimulation of the thyroid of unknown origin which results in the production and delivery of the tissue of abnormal thyroid secretion and in the activity of the thyroid gland. The symptoms of the disease include those dependent upon an increase in the basal metabolism and certain characteristic phenomena which are presumably dependent upon the abnormal secretion. The characteristic exophthalmic goiter is a characteristically psychiatric status of the patient, the movements and the tendency toward the development of gastrointestinal crises with vomiting and diarrhea. Frequently the fingernails and toes are partly and irregularly separated from the nail bed.

The symptoms of hyperfunctioning adenomatous goiter are dependent upon an excessive quantity of normal thyroxine in the tissues.

Determination of the effect of iodine administration is of value in the differentiation of the thyroidases and in the establishment of the presence of exophthalmic goiter. After the administration of iodine in sufficient doses the progress of exophthalmic goiter is stopped, the useless purposeful movements, the psychomotor status, the stare, and the vomiting of the crisis are controlled and in most cases a drop occurs in the basal metabolic rate. The effect of iodine administration upon the basal metabolic rate is of value only when several consecutive tests are made to determine whether the test is truly basal.

Difficulties in the differential diagnosis are frequently met in neuroses, essential hyperthyroidism, and Parkin's syndrome.

In the cases of patients who are seriously ill any combination of severe gastrointestinal and cardiovascular disturbance should suggest the possibility of hyperthyroidism. Hyperthyroidism should be considered in a case of diabetes not responding to insulin, an anticipated diabetes in which the reaction to the operations other than those on the thyroid gland is out of proportion to the operation.

Walt N. A. J. The Treatment of Exophthalmic Goiter. *B. M. J.* 98, 83.

In exophthalmic goiter operation should always be preceded by medical care. In the author's cases the patient is admitted to the hospital for rest and careful control of the diet for at least a week before the operation. Whether the patient is told or not that an operation is to be done depends upon the individual case but one of his near relatives is informed. During the week before the operation a careful study of the gastrointestinal, cardiac, nervous, and general condition is made. In some cases the basal metabolism is determined but this is not a routine procedure as it sometimes causes marked nervous disturbance. A light diet is given. Stimulants are avoided. Large quantities of fluids are administered and one half hour before the time at which the operation is to be performed the patient is given a pint of saline solution, given orally by rectum.

Lugol's solution is given in a minimum dose three times a day. Large doses and the administration of the smaller doses for a period longer than four or five days increase the symptoms. Different types of goiter require different methods of iodine. In the treatment of colloid goiter simple compounds such as iodide of iron are used. Rapidly increasing or increasing parenchymatous goiter requires thyroid extract. Exophthalmic goiter is benefited only by Lugol's solution. Iodine has no effect upon the thyroid extract, nor does the hyperthyroidism. Lugol's solution is beneficial but does not effect a cure.

When the condition is very poor a cardiologist is consulted. As a rule the administration of digitalis or quinidine will control the heart condition.

tion In the cases of nervous patients sedative drugs are occasionally indicated for the relief of insomnia

X-ray treatment does not obviate the necessity for operation but in cancer it is of great benefit It does not increase the difficulty of operation

The selection of the time for operation is of great importance It is rarely necessary to operate during the first six months of the disease as during this period medical treatment is usually beneficial In severe acute cases however an operation is done if the improvement under treatment with Lugol's solution is slight As heat has an unfavorable effect on patients suffering from goiter operation is not performed during the hot summer months

Three clinical types of toxic goiter are recognized

1 The condition that occurs as the end result of colloid goiter Patients with this type of goiter react well to treatment operation is not associated with much risk

2 Goiter associated with hyperthyroidism from the beginning Patients with this condition show marked improvement under preliminary medical treatment and make a good recovery following operation

3 Goiter appearing at about the menopause Patients with this condition are extremely nervous stand operation less well than others and convalesce slowly after operation Their condition can be much improved by pre-operative treatment

In the induction of anaesthesia chloroform should never be used as it is almost a specific poison In the author's cases the induction is begun by the rectal administration of 3 oz each of ether and olive oil This is given in the patient's room at the time at which the saline solution has been given three quarters of an hour before the time for the operation In the operating room the anaesthesia is continued by the administration of a small amount of ether on an open mask or by the use of warmed ether vapor

Whenever possible a considerable portion of the gland is resected All of one lobe the isthmus and the lower quarter of the other lobe are removed and the vessels of the superior pole of the remaining lobe are ligated In every case a drainage tube is inserted

After the operation the ether and olive oil are washed out of the rectum Sufficient morphine and atropine are used to control restlessness and large quantities of water are given at first by rectum and later by mouth Lugol's solution is of value to control postoperative hyperthyroidism Quiet and coolness are important

The immediate mortality is 5 per cent and the late mortality under 2 per cent In the author's cases a complete cure was obtained in 55 per cent and sufficient relief for the patient to earn his living in 81 per cent

The postoperative course passes through the following stages (1) the stage of reaction which lasts for three or four days (2) the stage of primary

improvement which is manifested within a fortnight of the operation (3) the stage of primary relapse which occurs as a rule when the patient returns home and lasts for from four to six weeks and (4) the stage of apparent cure which is reached after a few months

MARCUS H. HOBART, M.D.

Dunhill T. P. Anaesthesia in Thyroid Surgery

Proc. Roy. Soc. Med. Lond. 1918, 11, 345

The induction of anaesthesia for thyroid surgery may be rendered difficult by compression of the trachea in the neck, tracheal and bronchial irritation or chronic bronchitis associated with a toxic condition causing heart failure, acute toxicity causing great mental unrest or extreme tachycardia or both or associated conditions such as uncleanness of the mouth or tonsillar infection

The following types of anaesthesia have been employed by the author

1 Ether (a) open method (b) closed method (c) vaporized method (d) endotracheal method (e) rectal method

Nitrous oxide and oxygen (a) alone (b) combined with local anaesthesia (c) combined with ether

3 Chloroform

4 Local anaesthesia both local infiltration and regional

Chloroform anaesthesia is dangerous but its employment gives a freedom from bleeding not to be obtained by any other method of general narcosis Ether has rightly replaced chloroform in the great majority of cases It may be given in a number of ways either alone or in combination (1) on an open mask (2) by a closed method (Clover apparatus) (3) vaporized and warmed after it is vaporized (4) endotracheally or (5) by rectum All of these methods are safe and effective Ether given by any method tends to increase bleeding which is troublesome Dunhill prefers its administration by the endotracheal method but has found the rectal method of value in some cases

Nitrous oxide with oxygen is a most valuable anaesthetic Local anaesthesia gives a practically bloodless operative field and therefore saves much time during the operation

In cases with established auricular fibrillation local anaesthesia is best

MORRIS H. KAHN, M.D.

Chrimpton A. N. Acute Stenotic Laryngitis of Infectious Origin *Texas State J. M.* 1928, xviii, 669

Acute stenosis of the larynx produces alarming symptoms Its causes vary The author reports two cases which simulated laryngeal diphtheria but were due to an undetermined infection

The first was that of a boy twenty-two months old who three nights previously had had a sudden attack of coughing and respiratory distress with a temperature varying from 100 to 103 degrees F. The cough was of a barking character but not severe The voice was husky The dyspnoea was

so extreme that the child was unable to sleep at night. On the second night he received 10,000 units of diphtheria antitoxin. When he awoke by the author the respiratory rate was very rapid and there was marked inspiratory dyspnea with retraction of the sternum and ribs but no cyanosis. No membrane or exudate was visible in the fauces or pharynx. Examination of the chest was negative except for an inspiratory heez. A ventilation of the chest did not show a foreign body. The thymus was enlarged. The ant and laryngeal cultures were negative. Bacteria diptheria were positive for staphylococci, streptococci and pneumococci. The arytenoid cartilages and piglottic folds were normal and subglottic mucosa were red and swollen and only a slit-like aperture remained for respiration. There was no membrane or exudate. Tracheotomy was performed and as follow d by recovery.

The second case was that of the twelve year old first patient and had a very similar history and course.

The cause of the condition in these cases is unknown but was probably a streptococcus infection. To explain the marked changes in the larynx the author suggests that either the causative organism had a predilection for the larynx or the patients had a hereditary weakness to infection of the laryngeal tissues.

In the diagnosis the condition must be differentiated from laryngeal diptheria, the early stage of measles or scarlet fever, bronchopneumonia, influenza, angioneurotic edema, bulbar poliomyelitis, polio, and foreign body.

In the case reported the findings are rest of the larynx, the laryngoscopic findings.

The indications for treatment are clear. The respiratory function is impaired. The immediate problems to provide ample breathing passage and this is easily accomplished by tracheotomy. Intubation is unsatisfactory because the tube traumatizes the tissues and is difficult to introduce and keep in place. Therefore, very great danger of asphyxiation upon a tracheotomy would be dangerous and should be planned for when the patient finds it necessary to bring the necessary measures of epistaxis into play. R. A. B. S. M. D.

Arauz S. L. Contribution to the Study and Treatment of Laryngeal Papillomatosis in Children (Contributed by the author to the 1937 Congress of the American Association of Surgeons, New York, N. Y., September 1-5, 1937). *Revised September 1, 1937*

Laryngeal papillomatosis is characterized by a continuous tissue growth and an outer one of papilloma. The occurrence of laryngeal papillomatosis is very frequent after any method of treatment. Histologically they are benign but clinically they are dangerous because of their recurrent epithelial growth. Their etiology is unknown.

The chief symptom is cough and dyspnea. The cough occurs whenever the papilloma excites a reflex. The spontaneous expiration is painful. The author advocates the practice of removing any child with a laryngeal papilloma. The tumor can be removed by laryngotomy or by laryngectomy. Arauz uses the Killian technique as modified by Pizzardi and makes the endotracheal intubation a tracheostomy.

The prognosis of the operation is good in the first period of dysphonia. If treatment is not given until late and tracheotomy is necessary because of persistence of the dyspnea after removal of the tumor the prognosis is doubtful.

Local and general medical treatments have usually proven unsuccessful. It is not true that tracheotomy is a danger as in the case of the tumor, particularly in the case of the tumor. The tumor persists after the operation and the tracheotomy tube must be worn permanently. Tracheotomy should be done only as an emergency measure to relieve dyspnea.

Laryngectomy is less merited than tracheotomy and does not prevent recurrence. Radical resection of the disease is the principle of treatment. The author performed laryngectomy in the case of the patient.

Some excellent results from the use of radium have been reported but the author has given this method up because it found it effective and associated with the long serious complications. The best treatment is by laryngectomy. The author reports with removal of the tumor. If necessary, the operation may be repeated. In some of the author's cases there has been a cure after five years.

A. D. C. M. R. M. D.

SURGERY OF THE NERVOUS SYSTEM

BRAIN AND ITS COVERINGS CRANIAL NERVES

Magnant J S Traumatic Cerebral Hernia (1
hernie cérébrale post-traumatique) *Revue de l'Encephale*
Par 1917 vol 15 6

From experimental work on dogs the author concludes that the development of a traumatic cerebral hernia depend upon a lesion of the dura mater subjacent to the defect in the skull attrition of the cerebral tissue and infection. Secondary factors are cicatricial organization of the traumatized area blood stasis with edema and macroscopic or military cerebral abscesses near the region of the cranial defect.

After the trauma there is a vascular edema which later becomes inflammatory. The development of the edema is accompanied by an influx of erythrocytes leucocytes round cells and undifferentiated cells. The cells play two roles. By reason of their considerable number and by their struggle against the infection they cause a growth of the cerebral substance from below upward. The clot shows an influx of very numerous macrophage cells rapid organization of a tissue of budding granulations and development toward the formation of a cicatricial connective tissue. The sclerotic tissue arranges itself obliquely converging toward the top with blood stasis and edema and forming a veritable constricting ring around the cerebral zone. Through this ring the hernia pushes and its size is increased by progressively increasing venous stasis.

Cerebral hernia is most dangerous when it occurs in the motor zone. An abscess below or near the cerebral protuberance increases the size of the hernia and may necessitate further operations.

Trophic treatment and several curative treatments are described. The author recommends the Leriche operation. In the first stage of this procedure cutaneous flaps are folded back around the hernia. In the second stage the bony orifice is enlarged by trephination until healthy tissue is reached and the pedicle and lesions of the dura mater are exposed. In the third stage tampons of gauze are placed around the hernia. At the end of fifteen days the hernia begins to diminish in size and within a month it disappears.

If the cranial defect is the size of a 5 franc piece and situated in the frontal or parietal region cranioplasty should be done. If the defect is the size of the palm of the hand the patient should wear an external plaque held in place by bands. When the defect is relatively large a metallic plaque or dead human bone should be employed for its closure. When it is of moderate size preference should be given to an autoplatic surgical procedure with the use

of a pedicled flap or an osteoperiosteal or cartilaginous graft.

Four of Leriche's cases and one case treated by Chavannaz are reported in detail. *Annales de*

Blado M Morea R and Donovan C Roentgenography of the Third Ventricle (La radio galga del tercer ventriculo) *Arch. argent. de*
vol 9 1 3

The authors studied the size and relations of the third ventricle in a patient who had died a few hours previously of tuberculous peritonitis. They report their findings in detail.

For the direct injection of air into the ventricle for ventriculography they place the subject with his shoulders at the edge of a table and his head hanging over the edge and resting on a cushion. The roentgenograms are made with the use of a Coolidge radiator tube 30 ma. of current a 4' in spark gap a distance of 8 in. from the tube to the plate and an exposure of two seconds. For a lateral roentgenogram the incident ray is made to fall at the upper border of the ear the head being maintained in the horizontal position. When an anteroposterior roentgenogram is made the ray falls at the level of the glabella the head being held in a sagittal axis with the chin fixed on the thorax. In order to prevent distortion of the picture great care must be exercised to keep the head in position. The authors are now working on an arrangement by which the pictures may be taken with the tube beneath and the film above the skull. This will give pictures that are clearer and nearer the normal in size.

ALBERT G MORGAN M D

Brain W R The Use of Hypertonic Solutions in the Treatment of Increased Intracranial Pressure *Bull. J. 1918 1 86*

The author gives a brief but quite comprehensive review of the use of hypertonic solutions to lower intracranial pressure the condition under which these solutions should be employed and the best method of administering them in each type of case.

ERIC OLBERG M D

Pancost H K Experience in the Treatment of Brain Tumors by Irradiation During the Past Thirteen Years *Br. J. Radiol.* 1928 xiv 1

This article is based upon forty eight tumors of the central lumen. Twenty were classified pathologically. Of the eleven were infiltrating glioma five were cystic glioma one was a neurofibroma and four were endothelioma. Twenty five of the forty eight patients are living. Five of the eleven who are still alive were treated more than five years ago. Twelve patients are known to be dead.

Intracranial tumors are especially adapted to radiation therapy. They grow slowly and are rarely metastasize. Their partial removal does not cause the untoward ultimate flow, the partial removal of tumor cells in the body. A large proportion of brain tumors are made up of cells which are more susceptible to radiation than normal cells and the normal tissue surrounding such tumors is fairly resistant to it.

In addition to the usual dangers attending adrenalectomy, the body radiation of the brain may be attended with special danger if diaphragmatic emphysema is present. The pathologist should be alert to the fact that the distribution of metastatic small cell carcinoma is usually followed by death.

The best results of radiation can be obtained only by close cooperation between the radiologist, neurosurgeon, and neuropathologist. Accurate localization of the tumor is very important. The amount of benefit that results from the decompression by the surgical removal of the tumor is doubtless as great as that produced by the radiation. Attempts should be made by the neuropathologist to determine the relative intensity of the different types of tumor.

In conclusion the author states that there is no more justifiable to speak of a brain tumor than of a urogenital malignant growth elsewhere in the body.

CHAS. H. HOCK, M.D.

Puente J. J. Oland, R. and Do. Lang E. Mor
an's Syndrome. Unilateral Facial Paralysis
and a Unilateral Intracranial Lipodoma
of the Mandibular Division of the Trigeminal
Nerve. J. Clin. Pathol. 1973.

The author reports a rare case of a patient with a rare form of trigeminal neuralgia. The patient had a unilateral facial paralysis and a unilateral intracranial lipodoma of the mandibular division of the trigeminal nerve. The patient had a long history of the disease, which was first noticed when the patient was a child. The patient had a long history of the disease, which was first noticed when the patient was a child. The patient had a long history of the disease, which was first noticed when the patient was a child.

The author states that the Morand case is a bilateral mandibular division of the trigeminal nerve.

In the present case, the patient had a unilateral facial paralysis and a unilateral intracranial lipodoma of the mandibular division of the trigeminal nerve.

The author states that the patient had a long history of the disease, which was first noticed when the patient was a child.

partial laminectomy of the sixth cervical vertebra was done. No pulsation could be seen. The dura was greatly thickened and there was an adhesive arachnoiditis with small cyst collections of fluid. These changes were most marked on the right side. The meninges were opened and the posterior roots of the sixth cranial nerve were liberated. The spinal cord, which was normal in color, was not touched.

Recovery was uneventful and the patient was gratified by the greater strength and mobility of her right arm.

A. E. G. MORAN, M.D.

SPINAL CORD AND ITS COVERINGS

Elsberg C. A. E. Tradur l Spinal Tumor s-P
m y Second ry Metastatic S r g y
Ob t a s l

Elsberg states that the value to group spinal cord tumors into extradural and intradural growths and to divide the intradural growths into the extramedullary and the intramedullary.

Improvement in the technique for the operative removal of extramedullary tumors—in which the dura is first incised without injury to the arachnoid—has shown that some of these tumors are entirely outside and others inside of the arachnoid.

The author enumerates the various structures from which spinal cord tumors may arise and to which they may be attached and discusses the nomenclature proposed by various pathologists. He believes it probable that tumors called endotheliomata, meningiomata, and arachnoid fibroblastomata are derived from cells which were normally destined to form part of the arachnoid but became associated with the cell groups finally differentiated into the cells of the dura mater. In the author's opinion, the terminology used by Penfield—meningeal fibroblastoma, perineural fibroblastoma, and neurofibroma of von Recklinghausen—is the best proposed. The differentiation of the Recklinghausen tumors from the solitary perineural fibroblastomata is an important addition to the histological classification of encapsulated tumors of the nervous system. The term meningeal fibroblastoma is a good one because grossly tumors of this type may be attached to any of the three membranes.

Of 79 tumors operated upon in Elsberg's clinic, 41 (51.3%) of non-meningeal and metastatic extracranial growths (46.6%) were extradural and 33 (74.4%) intradural. The meningeal and perineural fibroblastomata constituted 8 per cent of the tumors in the extradural space but only 17 per cent of the intramedullary tumors. The meningeal and perineural fibroblastomata constituted 8 per cent of the extradural tumors but only 6 per cent of the intramedullary growths.

The growth of the intramedullary meningeal and perineural fibroblastomata is slow and in most cases the diagnosis is inferred from the clinical picture. The growth of the intramedullary meningeal and perineural fibroblastomata is slow and in most cases the diagnosis is inferred from the clinical picture.

grow more rapidly and either cause pressure upon the dura early or more or less suddenly extend into the vertebral canal through the intervertebral foramina or by bone destruction. Not rarely secondary metastatic growths cause an acute softening of the spinal cord through interference with its blood supply.

A short history suggests that the neoplasm is extradural. Radicular pain is less often an early symptom in cases of extradural expanding lesions because such growths do not often begin in the sheath of or near the nerve root. Not rarely the interposition of the firm dura and of a buffer of spinal fluid causes the early cord disturbances to be vague. A flaccid paraplegia occurring within a few days of the onset of weakness of the limbs is noted almost exclusively in malignant extradural disease.

Contralateral motor or sensory disturbances or a reverse Brown Sequard syndrome are observed most frequently in cases of extradural tumors.

Changes in the bone structures observable in the X-ray films occur in more than one half of the cases of extradural tumors although bone destruction is not always demonstrable with the X-ray. Such changes are evidenced by widening of the canal, a localized defect in one or more vertebral scolirosis at or above the lesion, the shadow of the tumor itself or a sinking together of the bodies of several vertebrae. In intradural growths with the exception of the giant growths of the conus and crura equina bony changes are rarely noted in the roentgenogram.

In most cases manometric studies of the spinal fluid have shown a more or less marked spinal subarachnoid block. The exceptions were cases of vertebral chondroma derived from an intervertebral disk. The spinal fluid was often yellow and contained an excess of globulin or total protein, but the increase in protein was never so high as in intradural compression of the cord.

In cases of extradural tumors and of intradural tumors which are attached to the dura the withdrawal of spinal fluid is often followed by a distinct increase in the subjective and objective signs of cord disturbance. The lumbar puncture may therefore clarify the picture and should be preceded and followed by a careful neurological examination.

Compression of the spinal cord by tumors not derived from the cord roots or membranes is of frequent occurrence. Such growths must be grouped according to their location and origin. Many extradural spinal tumors begin in the bony framework of the spine or in the adjacent soft tissues. They may be primarily within the vertebral canal or may invade the extradural space secondarily. The histological structure of these growths is subject to considerable variation.

If the variations in the clinical course of extradural tumors are to be understood the neoplasms must be grouped not only according to their histological structure but also according to their relation to the vertebral canal. From the latter view

point extradural tumors may be divided into (1) the primary extradural (2) the secondary extradural (3) the metastatic extradural. The author discusses these three groups in detail. Of particular interest in his series of cases were seven chondromata derived from intervertebral disks. Such tumors are small hard growths from 1 to 1.5 cm in length which arise from and are firmly fixed to the anterior wall of the vertebral canal. They have been found only in the cervical region and compress the dura on its ventral aspect. No bone changes were visible in the X-ray picture and in many cases there may be no subarachnoid block and no change in the spinal fluid. As a rule these growths must be approached by the transdural route. If the longitudinal extent of the neoplasm is so great that its limits cannot be exposed by the removal of three or four arches it is probably irremovable.

GILBERT C. ANDERSON M.D.

PERIPHERAL NERVES

Towne E. B. The Prevention of Injury to the Median Nerve. *Clinical & Experimental Medicine* 19 8 xxxviii 73

The author calls attention to common errors in the technique of operations on the humerus which are associated with danger to the radial nerve. The most frequent error is improper placement of the incision. When the incision is made incorrectly the unscathed nerve may be divided, included in a suture or crushed in a hemostat. In the open reduction of humeral fractures the nerve is often left lying upon the ruptured periosteum so that it is included in the callus.

For the surgical treatment of osteomyelitis Towne advocates Henry's incision by which the entire half of the humerus can be laid bare without danger to the nerve. To prevent inclusion of the nerve in the callus following the open reduction of a fracture he advocates the interposition of live muscle between the bone and the nerve.

ERIC OLDBERG M.D.

SYMPATHETIC NERVES

Simeoni V. Periaarterial Sympathectomy in Frezing (La sympathectomie periaarterielle au frezing). *Chirurgia* 14 101 102 19 7 vi 1 76

The author reports experiments on animals in which periaarterial sympathectomy was performed after frost bite, the operation being done on the same side as the lesion in some cases and on the opposite side in other.

In cases of serious lesions the ulcerations were sometimes affected favorably by the operation but the benefit was only temporary. When the lesion was less serious and particularly when it appeared late and was not very deep sympathectomy sometimes aided repair. However it did not retard the development of lesions due to freezing. When it was performed on the normal side it did not have any

SURGERY OF THE CHEST

TRACHEA LUNGS AND PLEURA

Lee W E and Tucker G Postoperative Pulmonary Atelectasis *Illinois M J* 19 8 1931 83

The authors believe that a great many postoperative pulmonary complications which are called pneumonia are in reality atelectasis. They distinguish three types of atelectasis—the massive the lobar and the lobular.

The etiology of atelectasis is unknown but it is generally agreed that immobilization of the diaphragm and bronchial obstruction are important factors. Plugging of a bronchus causes absorption of the trapped air by the circulating alveolar blood which results in collapse of the portion of lung corresponding to that bronchus.

The authors base their conclusions on autopsy findings and the observation that the removal of obstructing secretions from a bronchus by aspiration frequently causes the rapid expansion of an atelectatic area of lung. In experiments on a dog which had been subjected to an operation on the upper part of the abdomen under ether anesthesia they were able to cause immediate postoperative massive atelectasis by injecting into the right main bronchus the secretion aspirated from the bronchus of a human being suffering from the condition. In the dog the atelectasis involved the entire right lung.

The onset of atelectasis is sudden with a sensation of pain or tightness in the chest dyspnoea or tachypnoea a sudden increase in the temperature pulse rate and respiration cough with or without expectoration profuse sweating cyanosis displacement of the heart toward the affected side and asymmetry of the chest the affected side being relatively contracted and the sound side expanded.

Dullness is found directly over the collapsed lung but the thoracic space unoccupied by the collapsed lung is hyperresonant and may be tympanitic. In some cases vocal fremitus and breath sounds are diminished over the collapsed lung. In others these signs are increased and the breath sounds are tubular or amphoric in character and bronchophony and pectoriloquy are also extremely well marked. It is suggested that the difference in signs is dependent upon the patency of the bronchi the greater the patency the greater being the increase in the breath sounds. In general the type of atelectasis in which the bronchi are not patent represents the earlier stage of the condition.

Roentgen examination is of importance to confirm the diagnosis. The heart trachea and bronchi will be found displaced toward the affected side. In cases of massive atelectasis the thoracic spine is curved laterally with its concavity toward the affected side and the diaphragm on this side is elevated. The

lung on the affected side shows a localized or general increase in density while on the sound side there is a very marked decrease in density due to compensatory emphysema.

The treatment suggested for the massive types of atelectasis is bronchoscopy under cocaine local anæsthesia combined with a hypodermic injection of morphine. General anæsthesia is contra indicated. By means of bronchoscopy the bronchus or bronchi plugged with secretion can be located and the secretion removed by aspiration. As a rule this procedure must be repeated as the atelectasis recurs presumably because of the impossibility of aspirating the secretion from all of the smaller bronchi. When the cough becomes productive aspiration is no longer necessary.

The prognosis is usually very good. This is true even in the massive type provided the condition is unilateral. FRED W. SOLLEY M.D.

Rist E and Soulas A The Technique of Bronchiography with Iodized Oil A Case of Unrecognized Bronchiectasis (Recherches sur la technique de la bronchographie lipiodol à propos d'un cas de bronchiectase méconnue) *Bull et Ann S. Méd. et P. Par* 927 11 64

The case reported by the authors was that of a man twenty three years of age who developed bilateral bronchopneumonia two days after an abdominal operation and since then had expectorated about half a liter of purulent foetid material a day. Artificial pneumothorax on the left side caused no improvement. Roentgenographic examinations made by several roentgenologists after the intrabronchial injection of iodized oil failed to reveal dilatation of the bronchi but the authors looking for bronchiectases especially in the paravertebral space and the retrocardiac triangle noted ampullar postero-inferior bronchial ectasis which on the right side resembled grapes and on the left side were more cylindrical.

Rist and Soulas attribute their success in the examination to their technique which is as follows.

After cocaineization of the larynx and trachea a simple transglottic and tracheobronchial injection of stovain oil (5 to 10 per cent) is given. The intratracheal injection is administered very slowly with a 15 c.c. syringe first on the left side and then on the right side one syringe being used for each side. The patient is seated on a table and as soon as the injection is finished he is placed in lateral decubitus for three or four minutes. The head and thorax are held by the assistant beyond the edge of the table so that the hemithorax to be injected will not be compressed and there will be no interference with thoracic respiration. The injection including

the penetration time takes from six to eight minutes. After its completion the patient is placed behind the screen so that an idea of the larger bronchial ramifications may be obtained. A quarter of an hour after the injection the lower portions may be seen and this is the best time to take the roentgenograms. The roentgenograms are taken—on front view and on one in the right or left anterior oblique position. The picture taken at an angle is generally the one most clearly showing the juxta vertebral spaces. Illustration of the cardiac space in which bronchovascular casts are most frequently

seen. The author reports that the patient should be asked to take deep inspirations during the injection so that the iodized oil will be aspirated into the most remote ramifications of the bronchi. He should be asked also to cough. His effort to prevent coughing may be aided by a previous injection of an anæsthetic solution. On Sergeant's table the roentgenograms should be taken immediately after the injection because following the deep inspirations he recommends the image is the clearest and waiting increases the risk of coughing. As only a small quantity of iodized oil can be injected one cannot be sure that the bronchovascular hilar masses are the only ones. Hence pharyngotomy or other surgical operation for bronchiectasis of one side may be without result if the other large bronchiectasis is the other side.

ANNA L. TAC

Cutler E. C. The Etiology of Postoperative Abscess of Lung. *Op. St. M. J.* 98, 9.

The author believes that the etiological factors of postoperative abscesses of the lung are to be found in the operation and

Postoperative abscesses of the lung constitute one third of all pulmonary abscesses. Statistics show that a high percentage of pulmonary abscesses follow tonsillectomy but it must be remembered that tonsillectomy is one of the most frequently performed operations and constitutes one half of all operations performed within a space of a few tenths of an hour. Pulmonary abscess follows tonsillectomy no more frequently than it follows other operations in an infected field.

In an experiment on dog performed by the author infected nasal segments were set free in the jugular vein. The majority of these reached the left lung lobe. This experiment showed that an infected embolus will usually produce an abscess in the left lobe of the lungs.

In no experiment on dog simple infected clots were fed in the jugular vein but as the animals had no immunity to the new and unusual organism the usually produced a diffuse pneumonitis. The animal was then vaccinated with the organism to be used. An abscess resulted when the immunity established was not sufficient to overcome the infection at once.

As the experiments described did not exactly resemble the occurrence of abscess in man the clot

being formed in vivo an experiment was carried out in which an abscess was created about the jugular vein and after the elapse of a sufficient interval for the production of antibodies the wound was entered and the vein temporarily ligated to produce stasis and then severed and traumatized. In this manner the emboli were created in vivo the conditions of stasis, injury and infection which are necessary for the production of thrombosis. When the stasis established the clot slipped off and in a few instances an abscess was formed.

The author hopes to show by further experiments that embolism may be the cause of other postoperative pulmonary complications such as pleurisy, pneumonia and a consolidation resembling pneumonia.

Although the experiments described seem to show that embolism from an operative wound can produce postoperative pulmonary abscess in man they do not prove that all cases of postoperative abscesses of the lung are of embolic origin. It is possible that in certain cases the etiological factor is the aspiration of infected material. However any form of postoperative pulmonary complications may occur when the operation is performed under local anaesthesia. Moreover many pulmonary complications develop much later after operation than would be the case if they were due to aspiration and they often have the evidences which is characteristic of embolism. If aspiration were the only cause of postoperative abscess of the lung such abscesses should not occur after clean operations.

J. E. VAN KIRKPATRICK, M.D.

ESOPHAGUS AND MEDIASTINUM

Morse J. L. The Thyroid Obsession. *B. I. M. & S. J.* 98, 8, 547.

Morse states that it has recently become the tendency not only of pediatric but also of physicians in general to attribute to the thyroid all of the disturbances of infancy and early childhood which they cannot ascribe to clefts. As the function of the thyroid is practically unknown it is easy to assume that symptoms which cannot be accounted for in any other way are due to an increase or decrease in the hypothyroid secretion of this gland. Morse is of the opinion that physicians should not grasp the fact that there is a difference between the symptoms caused by an enlarged thyroid through pressure on other structures in the ante or mediastinum symptom which may be due to a continuous or intermittent increase or decrease in the hypothetical internal secretion of the thyroid and symptoms which may result from status lymphaticus of which enlargement of the thyroid is only one manifestation. There seems to be a general lack of knowledge also as to the normal size and growth of the thyroid and the size of its normal roentgen shadow.

Morse gives the average weight of the thyroid at birth and at the ages of six weeks, six months

puberty and fifty years. The size of the thymic shadow in the roentgenogram varies according to the position of the subject, the technique used for the examination, and whether the roentgenogram was made during inspiration or expiration. The shadow is larger during inspiration than during expiration. Unless the patient is always in the same position and the technique is always the same and unless the roentgenograms are taken after full expiration the findings of the X-ray examination are untrustworthy. As ordinarily taken roentgenograms reveal nothing as to the thickness of the thymus and if the examination is repeated it will show that the size of the shadow varies from hour to hour. It is therefore impossible even when a perfect roentgenographic technique is employed to lay down any arbitrary rules as to the normal size of the thymus in newborn infants or older children.

The only apparent object of attempting to diminish the size of a supposedly enlarged thymus seems to be to protect the infant against sudden death from status lymphaticus. The author discusses the possible fallacies in the commonly accepted views regarding status lymphaticus and the relation of this condition to enlargement of the thymus. It seems evident from the experience of surgeons and anæsthetists with whom he has discussed the subject that death from status lymphaticus as a result of anæsthetization and operation is most unusual. In Morse's opinion there is no justification for the assumption that shrinkage of the thymus by roentgen ray irradiation will have any effect on status lymphaticus and it is not reasonable nor justifiable to say that a roentgenogram should be taken of every child before anæsthetization or operation or that treatment with the roentgen ray should be given in every case before anæsthetization or operation if the roentgenologist believes the thymic shadow to be enlarged.

EMIL C. POBITSEK, M.D.

MISCELLANEOUS

Chapman J. F. The Value of the Lateral Exposure in the Roentgen Examination of the Chest. *Radiology* 1928 x 139.

In all roentgen ray examinations of the chest made in the Department of Radiology of the Stanford Medical School the patient is first examined with the fluoroscope. A single roentgenogram is then made in the anterior position and another in the direct lateral position. This procedure has been followed for several years and increasingly more reliance has been placed on the lateral exposure.

Although lateral roentgenography leaves much to be desired as regards detail it gives information relative to gross lesions that can be obtained in no other way. The lateral roentgenogram is analyzed in relation to the anatomical structures, particular attention being paid to the topography of the various fissures.

According to the author's studies lateral exposures are of value chiefly in such conditions as abscess, interlobar collections of fluid, localized pleural effusions, bronchiectasis, pneumonia, pleural adhesions, and foreign bodies. In lymphosarcoma, Hodgkin's disease, and tuberculosis they proved to be of less importance than was expected.

Chapman reports a number of cases in detail with roentgenograms to show the value of X-ray examination in the lateral direction.

ADOLPH HARTUNG, M.D.

Boothby W. M. and Haines S. F. Oxygen Therapy. *J. Am. M. Ass.* 1928 c 372.

Patients were treated in oxygen chambers with increased tensions of oxygen. The therapeutic effect was best in cases of acute anoxæmia evidenced by cyanosis such as occurs in pulmonary congestion and oedema, frank pneumonia, and laryngeal and tracheal obstruction. In this condition the use of oxygen was frequently a life saving procedure and in most cases it greatly increased the patient's comfort.

Oxygen treatment is of value only in relieving the patient of the added load and danger of anoxæmia and must be continued until the cause of the anoxæmia is relieved. There is no evidence that oxygen increases resistance to infection but as it prevents the lowering of resistance its administration should be initiated at the very first sign of cyanosis.

The study reported showed that a vicious circle can be started by a mild pulmonary or bronchial infection. Such infection leads first to pulmonary congestion and oedema which interfering with the respiration of the blood cause anoxæmia and cyanosis. The patient then becomes more susceptible to the infection and the consequent rapid development or extension of the pneumonic process completes the vicious circle by increasing the anoxæmia.

The authors noted also that a mild bronchial or pulmonary infection accompanied by cyanosis causes a greater elevation of the temperature than infection of the same degree in which cyanosis is prevented by the administration of oxygen. The administration of oxygen frequently produces a crisis like drop in the temperature, a decrease in the pulse rate, and marked clinical improvement.

SURGERY OF THE ABDOMEN

ABDOMINAL WALL AND PERITONEUM

Roque F An Endometrial Tumor of the Uterus
Billicu P R S M d I d 9 8
538

Roque de criba du Ly rather vas ular tumor
high as em y d from th umbilicus of a woman
forty n e y of age The pati t stated that
d r n g th m n t ual period the n opla m i n ca l
n i e became slightly painful and exul d blood
from eral nu s Wh n it as xcis l no con
ectio ith th p r t o n m e uld be f u n l Ho
e on th poste r a p c t of the tum r there as
a tract ith a hit gli tening lining h ch ndel
bl n lly in the regi n f the att a h m e n t of the pe l i c l
Th gro th as t n a p u l a t d

Th l a g o i of endometrioma as confi m l by
mi scop m i n t i o n On a count of the pr s
nce of th p r i u m b i l a l p e r i t o n a l f o s s i t e the
sp c i m e n l l p p t a l n o s t a n y of the the es
that ha b n a d n c l a s t the orig n of lo
metriomata G G A C E T T A D

Luginbuehl M Op at v o Con rvat Man
g m n t f Tube cul s f t i Pe r o n e u m
(Que t l k B t B h l l g de
B ch i l l e b k l) B t k l c l 9
1 5 6

From th vail bl l t ratur n tub r u l of
th p s t o n u m a n l a v e of t y as h i c h
e r e t r a t d o p e a t l v a l s i t y c a e h i c h e r e
t e a t d n r t l y a t h B a s l c l i n e i n the
p o l f r m r q 6 t o l y 6 t h a u t h o r l r a t h f l
l i n g n e l u o n

As R t t h a s t a t l d f n t e a d c t n
s p o t o s c u r s o c n t b e r c l u s p e r t o n t s
Th t e n l c v t d p o n t a o s c u r s o f h f
i m p o r t a n e n t h t a t m t a d e c n t n o
m e v t h u r m o l e r n t h e r p y t h n t o f v o r t a s
w s d o n f m e r t m t h m p l r r e m e d e s
Th s u r g l t r i m n t c o n t s i n l a p r o t o m y f l
l v d b y X r a y q a r t z l a m p o r u n l i g h t i r r d a t
t o n a n t o d i n t h p y (n t r a p t o l s t a
m u s c u l a r o r i o l e o i t m n t t h e r a p y) The m d a l
m a n a g e m e n t c o n t s h e d i r a b t i o n t h t h e
X r a y s q u a n t l m p n d s l i g h t u p p l m n t d
b y o f t o p r a t m n t p u n c t e s f o t h c u a t i o n
o f a i n t u l a d b r i n b t h

In a g e m e n t h r p t i n the l t a t u r e the
a u t h o r f o u n d t h a t n h a l f f t h s e s f e r p e r t e l
t u b e c l o s e n t h e B s l l n e r v r y e
s u l t e d n o m a t t r h t t h t a t m e n t A m o n g t h
c a s e s c u r e d b y m d l m a n a g e m e n t t h e r e c f o u r
f p o l y s r o s t i Th s e r i s f a e d e m o t r a t d
l o t h a t t h e d a t e f o r m of t h c n t i o n h a s
a m u c h m o r e f a o a b l e p r o g n o s i s t h a n t h f i b o

a l h e s v f o r m a n l t h a t i the l a t t e r c o n s e r v a t i v e
m a g m e n t g i v e m u c h b t t e r r e s u l t s t h a n o p r a
t i e t r e a t m e n t

The m t a l i t y f i g u r e s f o r t h e t y p e of t h e r a p y m a y
l e a d t o t h e e r r o n e o u s i m p r s s o n t h a t o p e r a t i v e
t r a t m e n t i s b e t t e r t h a n c o n s e r v a t i e t r e t m n t
r h e m o r t a l t y i n t h e c a s e s t e a t e d s u r g c a l l y b e i g
5 p e r c e n t a n d t h a t n c a s e s t r e a t e d m e d i c a l l y
b i n g 35 p e r c e n t The b a s i s f r t h e e r r o r i s t o b e
f o l i n t h e p a t i n t s g e n e a l c o n d i t i o n o n a d m i s s i o n
t o t h h o p i t a l M o t of t h e p a t i e n t s h o v e c
d m i t t e d f o r u r g i c a l t r e a t m e n t h a d b e e n t a k e n
a c u t e l l y v r s s u d d e n l y (t h e m a j o r t y e r e r e f e r e d
w i t h a d i a g n o s i s of a c t e a p p e n d i c i t i s) w h e r e a s m o t
of t h o s e h o r e a d m i t t e d f o r m e d i c a l t r a t m e n t
b l b n u l l f o a l o n g t i m e I t e s p e c i a l l y e m p h a
s i z e d t h a t n o p a t i n t d i e d f r o m t h t u b e r c u l o s i s of
t h e p e r i t o n e u m a l o n e T w o d e a t h d u e l i r e c t l y t o
t h p e r t o n i t s o c c u r r d n o t a s a r e s u l t of w a k e s s
i n i t i n o t o t e e f f e c t s b u t a s a r e s u l t of i n t e s
t n l p e r f o r a t i o n

O f t h e x t y p a t i e n t s t e t e d m e d i c a l l y a n d t h e
s i x t y t r a t e d s u r g i c a l l y a t t h B a s e l c l i n i c o n l y
s e n t y v c o u l d b e f o l l o w e d u p O f t h e l a t t e r
t h t y t h e e r t r a t e d s u r g i c a l l y a n d f o r t y t h r e e
n e d i c a l l y I n t h e m e d i c a l l y t r a t e d c a s e s a c u r e
s o b t a i n e d i n t e n t y t w o (5 r p e r c e n t) a n d i m
f o m e n t n e s e n (6 5 p e r c e n t) I n t h e c a s e s
t r a t e d s u r g c a l l y a u e v a s o b t a i n d i n s i x t e n
(4 9 p e r c e n t) a d i m p o v e m e n t i n t y l v e (3 6 p e r
c e n t) Th a a g t u r e r e q u i r e d t o o b t a i n a c u r e
i n b t h g u p s s i m o n t h s C (2)

McWl l e r G L To s l n of the Omentum w th
out f l n R e p t f T w o C s 1 d S g
q 8 509

The v a i u s t y p s of t o r s i o n of t h e o m e n t u m h a v e
b e n c l a s s e d f a l l o w s

T o s o n of t h e o m e n t u m u n a s s o c i a t e d w t h
h e n a l b e t i o n s o r t m o r

T o s n t h o u t h r n a b u t w i t h l d a d h e
s i o n s a t o n e o r m o r e p o i n t s

3 T o r s o n i n h r n a l a o i n t h e b d o m e n
i n t m a t e l y s o c c u r e d w i t h e r

4 T o r s o n t h e a b d o m i c o n j a c t i o n i t h a n
e x i s t i n g o r p e e i n g h r n a b t h a v i n g n o c o
n e c t i o n i t h t h e l a t t e r

5 T o s o n t h o t h e r n a s s o c i a t e d i t h t m
of t h e o m e n t m

6 T o s o n t h o u t h n i a s o c i a t e d w t h t u m
i n t h e b d o m n o r p r g n a c y o r t h e w i s e c v
p l i c t e d

O l y t e t y f o e s f t o of t h e o m e n t
n a s o c a t e d i t h h r n d i s t a s i o n s t u m o h a
b e e n r e p o r t e d The a t h o r e p o r t t e s s of t h
o n a n d d r a v s t h e f o l l o w i n g c o l s o s

Torsion of the omentum may occur in the absence of hernia or other pathological condition and without previous abdominal symptoms.

There is almost always evidence of a pre-existing pedicle. This may be of congenital origin.

Obesity of the omentum is present in the majority of cases and is probably often a predisposing factor in both the formation of the pedicle and the torsion.

Hyperæmia may be the usual exciting factor in torsion but trauma or unusual physical exertion may also initiate it.

Prophylactic resection of a pedunculated omentum and the liberation of adhesions are usually advisable.

Early operative resection of the strangulated omentum should be performed.

JOHN J. MALONEY, M.D.

GASTRO-INTESTINAL TRACT

Breitkopf E. Volvulus of the Stomach (Malus Volvulus). *Beitr. klin. Chir.* 1917, vol. 9.

Breitkopf reports a case of idiopathic anterior volvulus of the stomach on its axis. The patient was a man forty years of age who had had periodically recurring gastric disturbances for eleven years and suddenly after a heavy midday meal suffered a very severe attack of pain. The pain was not associated with vomiting. In the hope of alleviating it the patient took in the course of two and a half hours three heaping teaspoonsful of sodium bicarbonate. After the last dose there occurred a sudden progressively increasing distention of the abdomen accompanied by severe abdominal pain. Four hours later the patient was admitted to the hospital with cyanosis of the extremities and face and drum-like tenseness, marked tympany, and great distention of the abdomen. As reliable organic findings could not be obtained a tentative diagnosis of perforated ulcer of the stomach was made on the basis of the history.

At operation the interior wall of the greatly distended stomach at first suggested a cyst. On puncture a large quantity of gas was given off and the stomach became much smaller though it still contained a large amount of fluids and solids. An attempt to evacuate the gastric contents by means of the stomach tube was unsuccessful as the tube could not be passed through the cardia. Closer examination then disclosed a rotation of the corpus and fundus of the stomach to about 70 degrees the axis of the rotation being parallel with the long axis of the organ. The rotation had formed a fold which extended from the cardia in the wall of the fundus on a line parallel with the lesser curvature and exerted a valvular effect. The duodenal attachments were markedly relaxed (ptosis duodeni). In the upper part of the descending portion of the duodenum there was a serosal pannus, a whitish calcareous opacity suggesting an underlying ulcer. When the stomach was partly emptied through a gastrostomy opening the volvulus was un-

twisted. The postoperative convalescence was stormy but ultimately recovery resulted.

This case was characterized by extreme gastroparesis with marked weakness of the suspensory tissue of the duodenum and apparently a pyloric ulcer. The author concludes that the cicatricial contraction of the healing ulcer produced stenosis of the pylorus with resulting gastrectasis which favored the occurrence of volvulus. The indirect factor responsible for the volvulus was the heavy meal and the direct factor the sudden formation of large quantities of gas from the sodium bicarbonate. The rotation of the stomach amounted to only about 70 degrees and was therefore slight as compared with that in other cases reported in the literature. The rotation in the upper part of the stomach (corpus and fundus) occurred anteriorly because the transverse colon prevented a posterior rotation.

The explanation of the closure of the duodenal end of the stomach must be based on hypothesis as this portion of the organ was not exposed at operation. Roentgen examination suggested a stenotic condition of the pylorus but this was not sufficiently pronounced to explain the complete closure. It is probable that the dilated stomach was forced down against the sloping internal surface of the iliac bone and that the pull of the gastrocolic ligament tilted it toward the vertebral column thereby closing the pylorus by twisting it. (Punz, Z.)

Choisy R. and Babianetz L. A Contribution to the Study of Volvulus of the Stomach (Contribution à l'étude du volvulus de l'estomac). *Bull. Acad. Chir.* 1917, 410.

The authors describe the principal forms of volvulus of the stomach and emphasize the importance of the X-ray in the diagnosis of volvulus of the pyloric portion which is not clinically characteristic. They then report a case of volvulus of the stomach in which the diagnosis was made by roentgen examination. This case was characterized by an abdominal syndrome with intermittent pain and vomiting, intestinal stasis and pneumatosis, retention of urine and amenorrhea. Laparotomy revealed no organic changes in the stomach or its vicinity.

Volvulus of the stomach not exceeding 180 degrees may occur without causing any striking symptoms or functional disturbance. In the absence of organic lesions of the stomach gastric volvulus may be the result of intestinal pneumatosis. Its occurrence is favored also by the retention of urine and hypermotility of the stomach.

Volvulus of the stomach which does not exceed 180 degrees may become reduced spontaneously.

Nickel A. C. and Hafford A. R. Elective Localization of Streptococci Isolated from Cases of Peptic Ulcer. *Arch. Int. Med.* 1928, vol. 210.

A review of the literature reveals numerous cases by which ulcers of the stomach may be produced experimentally. Some investigators of these lesions believe that infection plays an important part in the

etiology of peptic ulcer and that a gastritis or duodenitis precedes the ulceration

Thurston and Renshaw elective localization method utilizing gastric secretions in cases of ulcer for localization. The focus is in the teeth tonal dipotential. In twenty nine of the eighty cases there was no focus in the teeth tonal dipotential. The focus was in the teeth tonal dipotential in the remaining cases. The focus was in the teeth tonal dipotential in the remaining cases.

It is noted in other cases in which the ulcer is localized to the first duodenum that the ulcer is producing streptococcus that proliferates in the stomach or duodenum in rabbits and in all of the eleven cases there was a focus in the teeth tonal dipotential. The majority of the patients have not indicated that they do not have a focus in the teeth tonal dipotential.

The author states that the use of antitoxin sometimes of the aseptoculture

Kelly and Johnson The Mechanism of Pain Production in Abdominal Visceral Disease with Special Reference to the Pains of Peptic Ulcer
Med J 4 1 1 9 4 64

Kelly summarizes this as follows:
The visceral pain is due to a stimulus which is either chemical or mechanical and is transmitted by the sympathetic nervous system.

3. Jamieson and McKim made an important step forward in the interpretation of pain by describing the effects but he considered a general inability to visualize and failed to describe the adequate stimulus which initiates the impulses in the reflex path.

4. Lander is the most important in emphasizing the sensibility of the parietal peritoneum but Lander's observations fail when applied to purely splanchnic pains.

5. Histed's hypothesis of the reflex and the truly cerebral element in splanchnic pain. He pointed out that the cause may be sensitive if the adequate stimulus is employed although they may be insensitive to other forms of interference. He considered distant on the adequate stimulus but failed to take into account the facts that extreme distention may cause no pain and that visceral pain may occur in the absence of distention. I believe that the action of a hollow viscus is a peristaltic or pathological distention depends upon its physiological habits. The stomach and the renal pelvis illustrate this principle from opposite standpoint.

6. The characteristics of pain in peptic ulcer are described as local stress bearing upon its usually steady nature. It is not that hemorrhage influences the pain.

7. Current theories (Mackenzie, Lennard-Jones, Hurst, Ryle and Carlsson) do not adequately explain the characteristics of ulcer pains.

8. Somatic pain may of course arise from mechanical interference. By dragging on the parietal peritoneum prolapse of the viscera may cause pain which is really somatic.

9. The parietal peritoneal disease of the splanchnopleuric can be brought under a common mechanism with somatic pain. Compression of the nerve fibers has been shown clinically and experimentally to be the essential common factor.

10. Compression is of two great varieties (1) that due to vascular and cellular congestion in the tissues and (2) that due to powerful muscular contraction.

11. Pains depending upon different mechanisms have definite and characteristic attributes follow naturally from the mode of pain production. This is a most important principle. Apart from pain due to mechanical interference with somatic tissues the congestive and the peristaltic effects of gastric varieties of pain.

12. The steady nature of peptic ulcer pains suggest is a steady cause namely congestion. Further scrutiny of this conception provides for the peculiarities of ulcer pains a satisfactory explanation hitherto impossible. Pain is therefore produced in a chronic ulcer of the stomach in the same way as in a chronic ulcer anywhere else as for example in the leg.

13. Congestion requires a certain amount of rigidity in the tissues in order that compression may be brought to a stage adequate for production. Congestion in rigid tissues present in every case of chronic peptic ulcer. The essentials for pain production according to previous notions could be demonstrated in but a few of the patients.

14. The alkalies have been investigated radiographically and kymographically in the healthy and the diseased subject. They have no effect on gastric peristalsis. Sodium bicarbonate causes a relaxation of the pyloroduodenal musculature.

15. The psudolep in appendicitis and gall bladder disease depend upon lymphangitis and lymphadenitis in the pyloroduodenal region.

Nunn and It The Inflammatory and Toxic Factors in the Pathology of Gastric and Duodenal Ulcer with Particular Reference to the Theory of Protein Denaturation (Dietrich and Ziegler) German Medical Journal 1934
Ziegler and Dietrich have shown that the denaturation of proteins is a factor in the production of gastric and duodenal ulcers. They have shown that the denaturation of proteins is a factor in the production of gastric and duodenal ulcers.

Following a review of the literature on infectious and inflammatory genesis of gastric and duodenal ulcer and an exhaustive consideration of Pfeiffer's theory as to the nature of fermentation by the products of protein decomposition the author attempts to throw some light on the problem of the rôle played by inflammation on the associated protein decomposition in the production of ulcer.

He states that every inflammation in the gastrointestinal tract as well as every erosion is to

be regarded as infected. Infection whatever the infecting organism produces a local inflammation of the wall of the stomach. Certain clinical observations indicate that the inflammatory phenomena are not to be considered solely as secondary processes in some instances an ulcer may result from them.

Besides bacterial toxins introduced from without and toxins formed within the body may lead to gastritis. Among the causes of auto intoxication the author regards protein decomposition products and histamin as of particular importance. In fact he believes that intoxication due to the products of protein decomposition is the basis of all theories of ulcer formation. That the products of protein decomposition may be excreted from the stomach and duodenum seems to be established by various pathological processes such as parenteral dyspepsia in children following infections and ulcers resulting from burns uræmic poisoning etc.

Besides the local production of protein decomposition products in the inflammatory foci a part is played also by inundation of the organism by the products of intermediary metabolism as a result of abnormal resorption (epilepsy). The author suggests that many gastroduodenal ulcers may be due to such chronic gastro intestinal auto intoxication of the organism. In support of this theory he cites the constipation so frequently associated with ulcer which is regarded as the primary trouble and the difference in the frequency of ulcer with different types of diet.

The intoxication caused by protein decomposition products is of such a character that it fits in with all theories regarding the genesis of ulcer. The author sees in the protein body theory the first beginnings of a therapy which perhaps may seriously threaten the status of surgical treatment. Such a stimulative therapy is to be seen in the tissue breakdown incident to the peritonitis following the perforation of an ulcer which is responsible for the permanent healing of a large number of ulcers.

In experiments carried out on dogs an attempt was made to produce similar conditions by the peritoneal injection of from 20 to 30 c cm of physiologic salt solution containing 1 or 2 c cm of oil of turpentine. These injections caused a considerable thickening of the peritoneum and a moderate amount of peritoneal exudate. It was found that experimentally produced ulcers healed rapidly when such injections were given. Experiments on dogs undertaken to substantiate Stuber's findings yielded negative results. In experiments on rabbits in which subdiaphragmatic section of the vagus was done and Laver's injections of formalin were given an ulcer was usually produced. JUL (L)

Nystrom G. Peptic Ulcer After Extensive Resection of the Stomach (Ulcer pepticum nach ausgedehnter Magenresektion). *Zentralblatt für Chirurgie* 1927 1 2265

Even extensive resection of the stomach is not a certain protection against peptic ulcer of the

jejunum and may not always result in a decrease in the secretion of hydrochloric acid and pepsin. The author reports a case from the Upsala clinic in which five months and thirteen months after a Billroth II operation for ulcer of the duodenum it was necessary to operate for jejunal ulcer. Even after the third operation a temporary anacidity was followed by a hydrochloric acid value of 24 and a total acidity value of 56.

Up to the present time there have been reported in the literature sixty two cases of peptic ulcer following resection of the stomach. More data must be collected with regard to the chemistry of the stomach after resection and especially in peptic ulcer of the jejunum following resection since our theories concerning this question require proof. Wanke reported from the Kiel clinic seventy cases treated by a Billroth II resection without a recurrence or the development of a jejunal ulcer. In more than 300 cases in which a Billroth I resection was performed from two to fifteen years ago there were two recurrences—an ulcer tumor in the anastomosis and a callous ulcer in the duodenum. In both of the cases with recurrence the resection had not been extensive enough and the acidity was high. However the recurrent ulcer and the jejunal ulcer were not the only evidences of failure in the ulcer treatment not all of the lesions in the other cases were healed.

Operation can bring about a cure only when it is performed on the basis of the proper indications. Resection of the pylorus and antrum is indicated for chronic callous penetrating ulcers and for cases of ulcer of the jejunum in which gastro enterostomy has failed but should not be done for simple ulcer or ulcer sickness without ulcer. It is indicated also for cases of chronic callous ulcer in which a spontaneous cure seems no longer possible. It does not matter much whether the method used is the Billroth I or II procedure.

Bruett examined the ulcer material of the Eppendorf clinic to see whether it was true as was formerly believed that jejunal ulcer occurs just as frequently after the Billroth II operation as after gastro enterostomy. Among 500 ulcer operations performed in the last six years there were 400 resections by the Billroth II method (Reichel-Polya) and 12 by the Billroth I method. In the same period 75 cases of jejunal ulcer were operated upon nearly all of them according to the Billroth II method. In 14 cases a gastro enterostomy had been performed previously. A Billroth II operation had been done previously in only 1 case and in this instance was performed for a jejunal ulcer which developed after a gastro enterostomy. It was noteworthy that in spite of the absence of free hydrochloric acid in fractional specimens several new peptic ulcers of the jejunum had formed.

It therefore appears that as indicated above in a case reported by Haberer free hydrochloric acid is not absolutely necessary for the formation of jejunal ulcer. In the 12 cases in which the Billroth

Operation was done the e were 2 recurrences one at the suture line and the other in the duodenum a year from the suture line. Therefore the good results obtained in other clinics with the Billroth I operation are confirmed. There is evidence also by 2 cases of ulcer in cases in which a Billroth I operation is performed at another clinic. (Z)

Section C. J. Jun. and G. St. Ojejun. I. Ulcer. UI. J. l. g. t. v. j. al. P. g. d. l. l. M. l. i. q. x. 363. 4.

There is a three c. s. of p. o. t. f. m. d. tail. th. ill. st. tions. H. ble. e. that high. h. t. c. i. t. n. of the cau. e. pred. spon. g. t. j. u. i. l. u. l. but. e. r. m. o. thin. a. p. r. di. pos. ing. u. H. i. f. th. p. ion. th. t. in. e. of. l. e. e. r. th. r. i. al. ay. in. l. e. i. a. th. is. H. e. h. s. i. f. q. u. e. n. t. ly. not. d. ag. o. t. in. e. c. f. u. l. but. d. not. re. g. a. d. it. a. v. m. p. t. a. n. t. H. d. o. e. not. h. e. l. p. e. that the k. n. l. f. s. u. t. u. r. e. s. of. a. s. m. u. c. h. i. m. p. o. r. t. a. n. c. e. a. h. i. d. b. e. c. l. i. m. b. e. d. b. y. s. o. m. s. r. e. g. e. s. s. i. n. c. e. a. n. d. a. r. y. u. l. c. e. r. h. a. s. d. e. v. e. l. o. p. e. d. f. t. h. e. u. o. f. c. a. t. g. u. t. v. l. l. a. f. t. e. r. th. u. s. f. i. l. k. s. u. t. u. r. e. s. N. o. r. d. o. s. h. b. l. i. that the type of gastroenterotomy makes much difference. b. n. l. a. v. l. c. r. e. u. r. s. th. a. b. o. u. t. q. u. i. f. q. u. e. y. a. f. t. e. r. i. n. t. e. o. a. n. d. p. o. s. t. e. r. g. a. s. t. o. t. o. m. y.

If it is found that the age time between the gastrectomy and the development of the jejunal ulcer is short, the former is a primary jejunal ulcer should be suspected. When the patient returns after a gastrectomy complaining of recurrence of his former symptoms. One of the chief symptoms of jejunal ulcer is a partial curcular pain on pressure to the left of the stomach or the right upper quadrant. Spontaneous pain develops later. The other symptoms of impotence, epistaxis, or recurrence of the gastric acidity, etc.

The best prophylactic treatment is suppression of the gastric secretion by the antacid of the pylorus as completely as possible at the original operation. In case of gastric duodenal ulcer, gastrectomy should be performed instead of gastroenterostomy if possible. In 80 cases, which the author performed, there was not a single instance of jejunal ulcer. Gastrectomy is indicated for the second ulcer. The details of the operation are shown in illustrations. It is important to remember that gastroenterostomy does not immediately effect a cure but may lay the foundation of the lesion and should therefore be followed by careful regulation of the diet and measures to reduce the gastric acid. (V. G. M. M. D.)

Lah. F. H. and J. d. n. S. M. G. t. Ojejun. I. Ulcer. and Gast. Ojejun. I. Ulcer. F. l. t. u. l. e. S. g. 98. 1x. 3.

The authors state that the majority of the ulcers developed after gastrectomy are gastroduodenal ulcers and not recurrences of the original

lesions. Gastric ulcers are more common than as formerly assumed. Because of their frequent and serious complications, their early discovery is of great importance. When medical treatment fails to give relief, the acidity prompt and complete eradication of the lesion is indicated. C. L. R. S. M. D.

H. d. i. t. y. R. H. M. On. t. l. e. T. t. m. e. n. t. f. G. a. s. t. r. i. c. Ulcer. C. d. M. t. J. 98. 4.

In cases of gastric ulcer, the patient's habits and social conditions and the heredity of the lesion have an important influence on the results of treatment. The recurrence of cases of undoubted gastric ulcer treated at the Royal Victoria Hospital, Montreal, during the last year shows that the majority of the cases either cured or benefited by medical treatment. However, medical treatment can be only symptomatic and does not know the cause of gastric ulcer.

Most surgeons and some internists agree that certain chronic ulcers and those with complications must be treated surgically. In a series of 300 medically treated cases of gastric and duodenal ulcer, which is reported by Eggleston, relief over a period of one year resulted in 70 per cent. In the series of 300 treated medically, a cure was obtained in 40 to 58 per cent in the moderate condition as improved or aggravated. The mortality of medical treatment ranged from 5 to 6 per cent.

Statistics of gastric cases treated surgically show that there may be a period from 80 to 90 per cent of cases of duodenal ulcer and in from 50 to 80 per cent of cases of gastric ulcer. The mortality ranges from 5 per cent depending upon the stage. Postoperative jejunal ulcer occurs in one per cent of the cases of benign gastric ulcer. In cases of those which have resisted medical management.

The proper treatment of gastric and duodenal ulcer is indicated by difficulty in the early diagnosis of the lesion and according to many authorities by constipation and indigestion, which the ulcer is but local manifestation. There is still difference of opinion as to whether gastric ulcer becomes malignant.

The author believes that acute ulcers require medical treatment and ulcers with complications require surgical treatment. In the other cases, the method may be used and the choice is often determined by the patient's social or financial condition. W. J. J. T. R. M. D.

T. J. l. o. F. B. The Ambulatory Treatment of Peptic Ulcer. C. I. F. G. W. I. M. d. 98. 48.

The author stresses the fact that many peptic ulcers can be cured by ambulatory treatment.

In taking the history of a case of peptic ulcer he requires regarding the patient's habits of eating, the character of his food, the use of tobacco, his exercise, what he terms the "psychic load," his occupation, he makes a search for foci

of infection in the teeth and tonsils. He tries to control the psychic load by urging the patient to manage his business, domestic and social affairs in such a way that he will not be incited to overdraw physically, mentally or financially.

The most important factor in the relief of ulcer pain is the frequent feeding of meals containing fat. Experimental evidence has shown that fat-containing meals depress the muscular activity of the stomach. By anticipating the pain and feeding at the opportune time it is usually possible to keep the patient free from pain. The author gives alkali only during the first few days. He prefers to give it in the form of calcium carbonate as all of this salt that is not attacked by the acid passes through the bowel without change so that excessive absorption is avoided.

While Taylor believes that there is some advantage in hospital treatment, he has found that when a patient is released from the hospital he has a tendency to work harder to make up for lost time thereby favoring a recurrence of the ulceration. If the patient will accept the program laid out for him and follow it for many months after he has become symptom free, he will live in comfort and surgery may often be forestalled.

In conclusion the author emphasizes that even when a patient treated for ulcer remains free from symptoms for months or years we cannot know that he is cured. Therefore the regulation of his life and habits must be continued indefinitely. If operation becomes necessary it should be accepted as one phase of the treatment.

POSCOTT GRAHAM, M.D.

Maclean II, Jones I. and Fildes G. The Cure of Gastric and Duodenal Ulcers by Intensive Alkaline Treatment. *Lancet* 1928 ccvii 14.

The authors state that the normal concentration of hydrochloric acid found by the usual test meal is deceptive as the acid continues to be secreted after digestion has been completed and the meal has left the stomach. As hypersecretion in the absence of food in the stomach tends to prevent the healing of gastric and duodenal ulcers, the authors advocate intensive alkaline therapy for such lesions. They give a mixture consisting of one part of sodium bicarbonate, two parts of magnesium carbonate and two parts of bismuth oxy carbonate. The magnesium may be decreased in cases with diarrhoea and the bismuth decreased in cases with constipation. In order that the powder will have the maximum effect the patient is kept on a liquid diet, preferably of milk for at least a week. A teaspoonful of the powder is given every two hours during the day and a double dose at night just before the patient retires. The duration of the treatment is approximately twelve weeks.

In the authors' opinion the action of the alkalis is essentially that of neutralization and alkalosis does not result. The effects of the treatment are harmful only in patients with advanced pathological conditions of the kidneys.

Cases in which the treatment described was followed by complete subsidence of the symptoms and disappearance of the signs of ulcer in the roentgen picture are reported. RODRICK V. CRACE, M.D.

Pamperl R. and Schwarz F. Experiences in the Surgical Treatment of Gastric and Duodenal Ulcer (*Erfahrungen mit der operativen Behandlung des Magens und Duodenalgeschwüres*). *Beitr. Klin. Chir.* 1917 cxi 259-311.

The authors report a follow-up study made of 637 cases of gastric and duodenal ulcer treated surgically in the period from 1912 to 1933 to determine whether and when palliative or radical operations should be attempted. Cases of embarrassing gastroenterostomy (an escape from an embarrassing or perplexing situation) have not been included in the report because the presence of an ulcer was not proved.

Among the absolute indications for operation were included stenosis, penetration and perforation and certain cases of hemorrhage. Operation was done also for special social reasons, but many of the patients had already been subjected to several courses of medical treatment. In the presence of occult hemorrhages, operation is indicated by pain, vomiting and emaciation even when the positive roentgenographic findings are not pronounced.

First among the operations in the cases reviewed was gastroenterostomy. This was usually combined with exclusion of the pylorus as a rule according to the technique of Wilms, but also according to the technique of von Eiselsberg. Postoperative hemorrhages from the suture were twice as frequent as those from the ulcer and are therefore to be attributed mainly to the technique. Two cases of surgically incurable ulcer are reported in detail.

In a series of 398 cases, 399 gastroenterostomies were done. The patients were between the second and eighth decades of life. Three hundred and four of them were males. Two hundred and twenty-eight of the ulcers were in the stomach. Of these 139 were in the pylorus, 40 were prepyloric and 49 were at a distance from the pylorus. One hundred and seventy ulcers were in the duodenum.

In 214 cases the operation consisted of gastroenterostomy alone and in 183 of gastroenterostomy with exclusion of the pylorus (the Wilms procedure in 181 and the von Eiselsberg procedure in 2). Exclusion of the pylorus was done in 124 cases of duodenal ulcer and 61 cases of vestibular ulcer. A peptic ulcer of the jejunum developed in only 2 instances.

In 244 of the cases treated by gastroenterostomy there were no complications. In the 154 others hemorrhage occurred in 8, penetration in 48, perforation in 43 and stenosis in 67. In 3 cases a second operation was necessary because of postoperative intestinal disturbances.

In recording the results of gastroenterostomy the author gives first the percentages including the cases of patients who could not be traced (157 or 27 per cent of the total number) and then the corresponding percentage calculated without the latter.

tive results Woolsey does not favor sleeve resection. The ideal operation he believes is partial gastrectomy.

In Woolsey's experience gastrojejunal ulcer has occurred in from 2 to 3 per cent of cases. The absence of such lesions in the cases treated at the University of California Clinic during the last five years is attributed to the use of an atraumatic technique and absorbable sutures and the careful adaptation of the operative treatment to the requirements of the particular lesion. Woolsey treats gastrojejunal ulcer by partial gastrectomy.

ROSCOE R. GRAHAM M.D.

Hartmann H. The Late Results of Gastro Enterostomy in Cases of Ulcer of the Lesser Curvature of the Stomach (Résultats éloignés de la gastroentérostomie dans l'ulcère de la petite courbure de l'estomac) *Bull et Mém Soc. d'Chir.* 1927 lvi 1097.

At the Surgical Congress of 1900 Duval and Delageniere stated that in cases of ulcer of the lesser curvature of the stomach gastro enterostomy should be abandoned in favor of excision of the ulcer. This view was shared by all who took part in the discussion. Hartmann agreed as he had practically given up gastro enterostomy for this type of lesion since 1907. However on studying the results in fifty cases in which he operated from one to twenty-two years ago he found that the late results of gastro enterostomy for ulcer of the lesser curvature were far better than he had anticipated even in cases without delayed emptying time.

Two of the patients had had some trouble during the first few months after the operation but since then had remained well for eight and twenty-two years respectively. Twenty-five were entirely free from symptoms after the operation. Accordingly twenty-seven of the fifty patients were clinically cured after a shorter or longer period. Six continued to have digestive disturbances but these were milder. Of eight who developed secondary troubles after they were believed to be cured four responded well to brief treatment. Two had late hemorrhages but felt perfectly well. A second operation was done in only two cases. In one of these there was partial intestinal obstruction from an omental band, a condition which was relieved when the band was severed. X-ray examination later revealed hour glass deformity of the stomach. In the other case the second operation revealed a cicatricial adhesion between the lesser curvature of the stomach and the liver without active ulceration. Gastropylorotomy was followed by recovery. Two patients later presented evidences of cancer. In the case of one who died fifteen months after the operation autopsy disclosed carcinoma of the stomach and liver. In the other case the clinical signs of cancer developed at the end of five years.

Hartmann concludes that contrary to prevailing opinion the results of gastro enterostomy in cases of ulcer of the lesser curvature of the stomach are

very satisfactory and that the operation has fallen into disrepute merely because it has often been performed in the absence of the proper indications or with a poor technique. LEO M. ZIMMERMAN M.D.

Reischauer. Three Fatal Cases of Dysenteric Enteritis Directly Secondary to Gastro Enterostomy or Extensive Gastric Resection for Ulcer of the Stomach (Drei Fälle von letal verlaufener ruhrartiger Enteritis im unmittelbaren Anschluss an Gastro enterostomie bez. ausgedehnte Magenresektion gegen Ulcus ventriculi) *Zentralbl. f. Chir.* 1927 li 2724.

In one of the cases reported by the author the necrotic inflammation was limited to the lower ileum and there was no involvement of the colon or the upper part of the small intestine. In all of the cases reported in the literature colitis was present. As compared with the prognostically very unfavorable and rare postoperative enteritis the much more frequent dyspepsia which develops later is of less importance. In the latter condition there are usually no definite findings in the intestine.

In the discussion of Reischauer's cases LEHMANN emphasized that it is essential to differentiate between the hemorrhagic diarrhoea which begins on the first day after operation and the non hemorrhagic dyspepsia which first develops several days after the operation. The latter is dependent upon the changed bacterial flora and gastric chemistry. Errors in diet are also a factor. Therefore hydrochloric acid should be administered soon after the gastric operation. The bloody mucous dysenteric conditions have not yet been explained. They occur also after gynecological operations and operations for brain tumor. Reflex nervous conditions may perhaps be a factor. The colitis with an unfavorable prognosis occurs only in weakened patients.

GOEBEL described the macroscopic and microscopic appearance of a gastric sarcoma. The condition had been diagnosed clinically as a perforated ulcer. The symptoms of perforation were due apparently to the rupture of the tumor into the lumen of the stomach at the site of a polypoid process extending through the gastric mucosa or to entrance of the gastric contents into the cavity made by the perforation. The latter would account for the fever and the adhesion of the tumor to the anterior abdominal wall. The adhesion caused muscular rigidity and pain on pressure in the epigastrium. Because of the digestive action of the gastric enzymes such an invasion of a stomach tumor by gastric contents may not be rare.

The structure of the tumor suggested the relatively rare angiosarcoma of the stomach. HENDEL (Z).

Thalheimer M. Degastro enterostomization (De la dégastro entérostomisation) *J de Chir.* 1927 xxx 385.

The term degastro enterostomization is used by the author for the operative closure of a gastro enterostomy opening. The procedure is indicated in

dead bacteria and intestinal secretions. The bulk of a stool depends largely upon the amount of cellulose contained in the food.

Cannon found that proteins have the slowest fats the next slowest and carbohydrates the quickest passage through the gastro intestinal tract.

Heile noticed that milk produces large amounts of residue and lean meat and rice leave very little residue.

In an experiment on young healthy men Rubner found that meats eggs rice white bread noodles and macaroni are most completely digested while milk cheese fats and potatoes are less well digested.

The low residue diet given at St. Mary's Hospital Rochester Minnesota consists of strained fruit juices broth tea coffee sugar candy made of sugar alone and gelatin made with strained fruit juices. When such a diet is given there may be no bowel movement for as long as eight days.

The authors carried out experiments on dogs which had been subjected to colon resection with end to end anastomosis of the ileum to the rectum. The details of the feeding and the collection of the specimens are given.

Protein foods such as meat liver gelatin and concentrated broth produced a stool resembling the fasting specimen.

Carbohydrates—rice bread banana apple and sugar—gave a somewhat more bulky stool which was odorless and of a golden color. When sucrose dextrose and lactose were added to the food the stool contained reducing substances. Fatty foods such as lard and butter produced watery and soapy stools. These stools did not contain any more bile than the others.

The rate of passage of the stools was also studied. Fats passed through the intestinal tract so quickly that in many cases they were not affected by the digestive juices. Meat had the slowest passage through the digestive tract. The rate at which the carbohydrates passed was intermediate between that of fats and that of meats except in the case of rice which had a rate even slower than that of meat. Liquids increased the bulk of the stool.

When sugars such as lactose dextrose and karo were fed the appearance time at the rectum ranged from fifteen to thirty minutes. In the case of lactose and dextrose nothing was obtained after four and a half hours but in the case of karo the bulk of the stool was obtained in from four to six hours. In the case of whole milk the appearance time was thirty minutes and the bulk of the stool was passed in three hours. No difference was noted when the milk was boiled.

Swiss cheese appeared in thirty minutes. Its progress was rapid and it produced enormous amount of fluid residue even after five and a half hours the fecal output was large. Cottage cheese acted in much the same way as meat its progress was slow and the curve of its excretion was flat.

The addition of milk to other foods did not have a marked influence upon digestion. In some cases it slightly increased the rate and considerably in

creased the bulk of the stool. Any interference with digestion seemed to be due to the influence of the casein or lactose.

The foods producing the least residue were gelatin sucrose dextrose karo concentrated broths hard boiled eggs meat liver rice farina and cottage cheese. Those producing the largest amount of residue were fruits potatoes lard butter Swiss cheese soft boiled eggs raw egg albumen milk and lactose. The largest amount of dry residue was produced by raw egg albumen and the largest amount of moist residue by bananas. In some cases bananas produced a stool larger than the original meal.

The authors conclude that milk should not be given when a low residue diet is desired.

WILFRED I. GRAHAM, M.D.

Navarro. Three Cases of Duodenal Compression.
(Sintesis de compresión duodenal) *Bull. t. m. Soc. n. d. chir.* 9, jun. 323.

In the first case of duodenal compression reported by Navarro there was a history of dyspepsia over a period of years which finally ended in gastric stasis with vomiting. When the patient was examined by the author a mass felt in the pyloric region was thought to be either an ulcer or a carcinoma. At operation this was found to be the inflamed head of the pancreas. The peritoneum over the gland was split and the head of the pancreas freed. The operation was followed by considerable restlessness and vomiting but the patient recovered and twenty one years afterward had no return of symptoms. Navarro attributes the stormy postoperative course to operative trauma to the coeliac plexus. The fact that the inflammatory mass compressed only the duodenum leaving the bile ducts free he explains by the difference in the relations of the two embryological anlagen of the pancreas the posterior lies in relation to the common duct and the anterior in relation to the duodenum.

In the second case reported the obstruction was caused by tuberculous glands among the mesenteric vessels. At a previous operation tuberculous peritonitis had been found. At a second operation the glands were removed. Two years later symptoms of duodenal obstruction again developed and at a third operation a tuberculous gland was found at the same location. Navarro is opposed to gastroenterostomy and duodenojejunostomy in the cases he prefers simple removal of the glands.

In the third case reported the condition was due to the traction of a floating kidney on the peritoneum over the duodenum. A nephropexy was done through a second incision in the lumbar region. Since the operation there has been no return of symptoms.

MICHAEL I. MASON, M.D.

Ellason E. L. Rupture of the Bowel at the Duodenojejunal Junction. *I. n. S. G.* 19, 8, 1917, 13.

The patient whose case is reported in this article was a man twenty four years of age who had been

struck in the abdomen by a plank thrown from a
re olving sa The accident cause llos of conscious
es f rafe m ment follo ed by severe abdominal
pai na ea d mit g

Whe the pat e t a lmitted to the ho p tal
fiftee ho lte hi t mp rature pule e pi tion
an! llool pr u e mal The leucocyte
c unt was 400 Th ablon n p e nter l con
tu ed area th hape of a pla ke d er the left
uppr p tio et nd g f m the t nth co tal
c tilag t the millne The bl min l mu cles
er l a ilke n th r g h t a lpe stals
th e t The a gene lize ite der a d pa
tent tie lag o of ruptu el i u as made

At p t p f m e l s tee ho after the
ace lent the perit ne m fou d ma k l l n
je tel l h l l e t h l y m p a i s u l Whe the
grat mentum dt ns recole e edel ve d
a large quant ty of the patie t s part lly de tel
b eakfa e tel from the blom n F r the
e a u ti l l e l e l ag g d t r b o t i lon

t l ng l l u e l y f r m in font f the h t h
f the j unum n r the me nt r y r and th free
b rde an l r th j o t r i all of the last t
n o the lu le um Th e r a l e l by a double
r f utu an l the id m the su h l w th

l s l t l d a e l p a b l y a l local
l h pat th l a m th n l s e f r x
la l ut th e ith l h had pleptif m
eon ul l t g hour Que t n g then
el ed hit r of e l e p R m al f th ab
l m n l l e s ng fe hur ftr the zu h
el el u p tured u d th me tum l a l o p

fjeu u f on ot i l g l g the te or
r l m n l l l e l e t u o x d a t the a
th r a e c l e d n d f l th the
bl n l p l k g No ttempt a mal t
tur the uid

Th e s e k l t r th granulat g u l
g affe l l the R l n meth l Reco e v
un tful n l the p t e t rep r t l the e month
lat that h a n p f the l th

H R W F M D

G u d H Perf t on f th D od num—
Ule o o Tr umat f Gen al ed Pe t
n r M kul e D ain ge s th Only Te t
m nt R co y i f i t d d i m—
le u u t m t i P t t g n l e
d k l M k l m m l t t m t
gué) h l l S t d f o l

Gaudi pot a e h h am to operati n
ft frt ght ho w th lag i of p
t nit f pp i l o g n The ablonen
f un l to tai i ul t l r e a d a f for
t n d l n th n l p r t f th
l l um l h n t f th lu l n l l
l l o p m t cl u t th p e f atio ly
tur th m nt m t o thick to be br ght
d n th h l nd ga t o nt tomy due ot
em f ible A th p t i t s c n d t on appea ed
to b desperate a M kul e drain was mse ted a

gauze wick placed in the cul de sac and the abdo
men clo ed th metal wire

Dra nage v a profuse and the skin became ex
tens v ly irritate l and ul e ated On the s i th day
the suture ga e way permitting the abdominal
ound to gape v idely The patient survived an
attack f br nchopne monia and thereafter his con
dit on rema n d good Th drainag ceased one
month after the operati n

Th uth is unable to state v hether the per
forati n v as d e to a slight traumatism o to an
ulc v ith only m l l symptoms but because of the
ab e nce of a h to v of e c c t h morrhage he bel eves
it had an l c r bism L o M Z i M E s v M D

Goeb l H e u f the Affarent Loop Afrrer R ect n
of the Sr ma h fo Du den l Ulc and Meg
d denum (il d f h d S h l g ch
M g l t g U l d od d M ga
d d m l L t l l f C i o 7 l 72

The auth r p r t the case of a fifty y e r old
man ith m gaduod num and recur ent symptoms
of ulc r R tio a d e according to the
B l l r th H K o n l n M kul i z te h n q e with ante
c l i s p r istaltic suturing of a l o p f jejunum to
the stom h a l ntero nastomosis e eord ng to
th m th d of Braun On the m n ng after the
p r t o th ple as apid Po toperati e
h morrh g e u c d nd th p t nt d ed on the
th l day Th e wa ne er any di tent on of the
abl m n r t n d

At ut p th after nt loop of jeju um b low the
Braun nt o rna t m v as f and to be ma ledly
nflat l At th st of the ent ro nastom s the
l p a t t l p hap b e a u e of the mega
d o l um Th pull of th twi ted loop th s
t t e m b l ng th f u d in leus h d
t t e l the te a t t mosti poster ly th rebv
furthe n ng the affer nt loop

Th d od um h h v a markedly d lated a d
th f r nt l p o f j unum ver fill d v th a large
q ntity of dark f l id Th jejunum was partly
v l t and p tlv bluish (nec t c) The suture h d
h l d but v as b omong loos

Th c ad t on as therf e a local leus of the
j unal p lu to t isti g n l c l ure of the
t e st ne at th te of the B a u n a n a t m s The
t t i g c a b explai ed ly by the megad o
den m The large de duoden m con tantly
mpti dm e material into the ntestin the by in
c east g th pulla d making th constriction tighter

Th complet ab e nce of loc l d stenion om t
i g a d l a g e am units of fluid in the stomach and
the un l t b d p ssag f flat nd faeces are
d f ult to plan

In th h u io f thi eport WINKELBAUER
p t d a e of nte nal ca ceration after a
ga tro nte o t my due to dilatati n of the st m
ch me nte oc l s n of the t e st ne

MELCHIOR stated that he had obtai ed good re
lts f om duod no jejunostomy n a case of vicio s
cicle

KOLACZEK reported a case of intestinal obstruction nine days after a gastro enterostomy in which the picture of acute gastric ileus quickly developed. At a second laparotomy performed on the tenth day, a Witzel fistula was formed on the anterior wall of the stomach and a tube was introduced through this and the gastro enterostomy opening into the efferent loop of jejunum. The vomiting then ceased and feeding was possible. Following removal of the tube at the end of two weeks there were no further disturbances of intestinal function. HIRNDEL (Z).

Paulson M. Chronic Ulcerative Colitis with Reference to a Bacterial Etiology. *Experimental Studies*. *Irel Int Med* 1928 21: 75.

Paulson studied fourteen cases of chronic ulcerative colitis with reference to a bacterial etiology. The methods of study are described in detail.

Ten distinct types of streptococci were isolated from the base of the ulcer or from hyperemic tissue in the rectum. No one type was found in more than three cases.

Five of the seven types injected into the blood stream of rabbits produced a lesion. Thirty four rabbits were used. Of the thirty which came to necropsy fourteen showed lesions primarily in the colon and rectum. In twelve rabbits the lesions were associated with diarrhea without mucus or blood.

Twenty rabbits were injected with seven types of streptococci from sources other than the bowel in cases of ulcerative colitis. In twelve of the sixteen which came to necropsy there were lesions similar to those in the previous group but fewer of these lesions occurred in the colon and rectum and a greater number elsewhere in the intestinal tract. Nine rabbits showed clinical symptom of the disease without the passage of mucus or blood.

The author concludes that the lesions were the same although the organisms were from a totally different source and that there is no morphological difference in cultures from the base of ulcers in chronic ulcerative colitis and those made from cleansed sigmoides.

In a comparative study of the bacterial flora in a small group of normal persons and in persons with ulcerative colitis he found the bacillus coli, bacillus welchii and streptococcus to be more numerous in the latter group. The role played by the bacillus coli and bacillus welchii was not determined.

Bargen established the fact that the streptococcus described by him—which is not characteristic morphologically of any one type of Gram positive coccus inhabiting the normal or diseased intestinal tract—can be isolated with some degree of frequency in chronic ulcerative colitis and will produce lesions in the rectum and colon. However he has not performed control experiments to establish specificity and his vaccine therapy appears to be non specific.

The author gives Bargen credit for stimulating research in this field but on account of the similarity of the results of these experiments with two groups

of streptococci—one from ulcerative colitis and the other from other sources—he maintains that the bacterial etiology of ulcerative colitis is still undetermined.

WILFRID L. GRAHAM M.D.

Blanchi G. Adenocarcinoma of the Cecum. (*Giade o carcinoma del cieco*). *Italiana di chi* 1927 1: 99.

Two cases of adenocarcinoma of the cecum are reported. One was that of a man fifty four years of age and the other that of a man fifty five years old. Radical operation was performed in both and both patients are still in good health one thirteen years and the other three years after the operation. A histological description of the tumors is given.

These tumors are quite unusual. They may be either infiltrating or localized. Those of the former type infiltrate the wall of the intestine for varying distances forming a sort of cuff around it and transforming the bowel into a rigid smooth tube. Those of the localized variety are generally irregular or nodular and attached to the intestine by a small base. These tumors are thought by some pathologists to be caused by trauma or nerve lesions but are attributed more generally to a slow process of inflammation.

Intestinal occlusion is a late sign. In the early stages the symptoms are indefinite consisting of slight intestinal irritation with irregularity in defecation and the admixture of gas with the feces. In some cases the first indications of the condition include the presence of traces of occult blood in the feces. Later the stools are mixed with pus, mucus and macroscopically visible blood and there are signs of occlusion. Attacks of more or less intense colic occur as the tumor develops. The literature reports cases of tumor of the cecum and ascending colon in which the condition was mistaken for appendicitis.

Anemia and deterioration of the general health are relatively early signs. They occurred in the author's first case before there were any indications of stenosis. Some surgeons state that periumbilical pain is a sign of the condition especially when obstruction of the ileocecal valve is threatened.

Age is not of much value in the diagnosis because the tumors may occur even in early youth. As a rule their nature can be determined only by operation and laboratory examination. The treatment is as complete removal as possible. Roentgen treatment has not proved successful.

ANDREW C. MORGAN M.D.

Wakeley C. P. G. and Gladstone R. J. The Relative Frequency of Various Positions of the Vermiform Appendix as Ascertained by an Autopsy of 5000 Cases. *British Medical Journal* 1918 1: 8.

As the position of an inflamed and gangrenous appendix and its relationship to adjoining parts frequently determine the site of an abscess it is important for the surgeon to have some knowledge of the relative frequency with which the appendix

may be found in various situations and its relation ship to the surrounding pouches and folds of peritoneum. In a study of 5000 cases the authors found the appendix in the following positions:

| P t | f p l | C | P | t |
|-----------|----------------|-----------------|-----|----|
| V t | p l l | 47 | 94 | |
| Spl | p t l l | | | |
| l l | p a m l e | h g | | |
| b k | th t m fth p l | 6 6 | 3 | |
| S b a l b | th t m p t r | | | |
| P t | l d t l | 3 9 | 64 | 38 |
| I t p | | | | 4 |
| I a h fth | p t n d | h l m d e t i l | | |
| | l k J | McGo | M D | |

Lehm nn H Acut Appendicitis in the Ag d
D App f t t m G l t) H k l
H / / 9 l 99

I pite fth elati c ity f app d itis n
th ag d it s n e s a r v t b a r the o n d t n i n
m i l n t h l i a g i o f t h s y m p t o m i n t h e
l e r p a r t f t h e b d m o n t h r i g h t i d e s n
n l y b c a l y p r a t i l t b e p b l e t o p e
t u s c o m p l i c a t n T h e l g o s i s s t e n
l i t t T h i m p o r t n t g f r g d t v o f t h e
a b n o r m a l a l l i s f q u n t l a b n o n a c o u r t f
t h e l a t v f t h a b d o m i n l m u c l a n d d e a f n
i n l i n c m a y e l r t d i f f i c u l t t o b t a i n a
h a t e t i c h t r y L n h n t h c d t i o n s
a l a l t h t m p t l s h e 3
d g C

Th utho r p o t s f a c u t e p p e n l u o f
p a t n b t n t v f l g h t y v a o f
g O p r a t p e r f m l i t h n t h e t t
t t f r h u a d a s d o n e u n d e l a l a e
t h C m p l t r e r u l t l n f i s
O n p a t t l l p l a s c a l p h l g m n
i t h t f m a t i o o f a l a r g f a l t u l a n i s a l
t r a p t a l a b C k s Z

Melle e J Fh Va ula z t o n f t h T u n o f
t h l f t P t o f t h C I n f t s S u g l A p
p l c a t i o n E t i d l i t d t q
l m n t h h d l p p h t
h l l d t p h o

M ill e r i n c l u d e n h a t c l d g r m s s h o g
t h e c o s t u n f t h e l o f t h c l o a n l
t h e i r m a r e m e n t s T h d m o n s t r a t t h e r y
l o n g s s e l a s c u l a z e s t r a n g u l a z n e t h b
o f v h l s a t t h e f r e e b o r d r o f t h e o l n a n d t h
a p e r f h i c h p a s s a o n d t h m e o c l i c b o d r
l h s h o t e s l s b e t w e n t h t o l n g s e l
v a s c u l r i z e a t a n g u l a z n e a b o u t c m b r o d
v h i c h h a i t s h a e a t t h e m e s o l n T h e s h a p e o f
t h e a a s c u l a r i e d b y t h e l o n g v s e l e x p l a i n
t h z n e o f g a n g e e s n a f t r c r t n c e l u r
n t e r o r a p h s D e n u d t n o f t h c l o n w h h
n e c s a t s d s n e t i o n o f t h m e s o c l o n a n d r e
m o v a l o f a p p e n d i c e p l c e m a y n u e t h e v e
e l R e c t i o n o f a p p e n d s e p p l o c a i s p e r
t i c u l a r l y d a n g e o u b e c a u s e o f t h e p r e n c e i n
b a s e o f e a c h e p p l c t a g o t r a h t v e s s e l

In the resection of a tumor the appendices epiploicae may be left if there is not much fat but if they are large lamelliform digitiform or confluent they must be resected. To obtain a zone for suturing it is generally sufficient to denude an area of 8 mm on each side of the line of incision that is removed one appendix epiploica. This zone should be oblique and near to the tumor at the mesenteric border than at the free border. The section should then be made obliquely and the intestine tired led to edge.

WURFA (M G A M D

Meccl ing C C The Symptoms f C neer of the
Re tum l l t M J 9 8
Allen J H Tle D g n o s o f C n 3
t u m l l t M J 9 8
I f f e D B Tl Ch ce of Ope t o n l n C a
c n m f t l e R e t u m l l t M J 9 8
u 36

M E C H I N G t t t h a t c e t l c a n c e r s c o n s t i t u t e
a b o u t 4 p r c n t o f a l l c a n c e a n d i n t h e U n i t e d
S t a t s a p o n b l f r m o e t h 3 0 0 0 d e a t h
e h v e a W h n a p t e n t w h o h a s a l w a y s b n
e g u l r i n h s h o l h a b i t s e e k s e l f f r o m a n
n u s u l a n l o b t a i n c o n t i p a t i o n t h o r o u h
r e t a l a m i n a t o n i n d i c a t e d a i n s u h c a s e n
a r l y c r o u s t u m o r o f t h e c t u m i s v e r y l i k e l y
t h d r d D r h e a d e v e l o p m e n t f r o m t h r e t o
s k f t r t h p e i f c o n s t a n t i o n

A L L E N h a s f u n l t h t h o n s e t o f c a n c e r o f t h
t u m o r s g e n e r a l n t h f o u r t h s o f t h e c a s e s a n d
u l t i m o n o f t h e r e a r l y s y m p t o m s i n c l u d
n i g t i o n t h n a u e a a b d o m i n a l d i s c o m f o r t
b e c r t a n p a t i o n s a s s u m d e c t a l
m f t t h e p a g e o f f l a t u s t h o i t h u t
m u s a n l t h e s a t i o n a f t e r d f e c a t t h a t
t h e b l m o v e m e n t h a n o t b e c o m p l e t d A
p e r s t i d i a h o e a v h i c h d o e s t e l d t o b i l
l a r y a m e b c t a t m e t i s t o g l d i c a t o f
m a l g c a

P r e f e r r e s t t s t h t h t w o t g e o p r a t
v t h p r e l i m n a r y a b d o m a l c e l o t o m y m a y b e
g d d a s t h s t a n d a r d p e e d r e f e r c a r e o f
t h c t u m T h e a c r a l a n u h a s b n a b a n d o d
a s l e t s a c t o J o t k a r M D

S o u p u l t R E T h e O p e t o n o f H I l a t m n n
A b d m n l E t i r p t n o f C a n e s l t h
U p p e r P t o f t h R t u m n d o f t h R e c t o
g m l d J u n t e (L p t d H I l t m
b f t p b d m l e d i f h t
t m t d I j t t g m d) J d
h o 5 3

H I r t m a n n s o p e r a t i o n f r c a n c e o f t h e u p p e r
p a r t o f t h c t u m o r t h r e c t g m o i d j u n c t u r e
a b l r e c t i o n o f t h t u m a n d t h d i a c n t s g
m e n t s f n t e s t i v t h t h e r e s p o n l g m e s o c l o n
o f a r e c t a l s t u m p b e i n g l f t i s t a n d t h e r
o f t h e c o l o n u d f a p e m a n t c l t m y
e p a t i e n t p l c e d i n a n i n c l i n e d p o s i t i o n i t h
d o w n T h e i n c i o i s b e g u n i n t h e l e f t i l a c

fossa at the level of and medial to the anterior superior spine and extended to the midline just above the pubis and slightly over to the right side of the abdomen. The loops of intestine are packed aside and the tumor is explored with regard to its connections and the extent of its invasion. The mesorectum well spread out is then drawn to the left and its right leaf is incised about 1 cm. in front of its reflection onto the posterior peritoneum. The same procedure is done on the left side, the intestine being swung toward the right. Finally the peritoneum is incised at the base of the cul de sac, the two lateral incisions being joined in the mesorectum.

It is then easy to free the rectum completely—in front following the rectovaginal or rectovesical cleavage plane and behind following the booby plane of the sacrum, the entire rectorectal area being freed and the rectum together with the fatty cellular tissue, the glands and the vessels which lie in the mesorectum or its base being pushed forward.

When the position of the superior hemorrhoidal artery has been ascertained, the mesocolon is cut between forceps just to the level of the future section of the colon. By drawing the rectum upward and forward the apparently inaccessible deeper segments of the rectum are delivered with surprising facility. Two L-shaped clamps are then placed on the rectum as low down as possible, the bowel is divided between them and the cut edges are iodized. The proximal end is temporarily covered with a pad and the distal end is closed with two layers of sutures. Although there is no peritoneal investment, the danger of infection is minimal because of the absence of tension on the sutures. The pelvic cavity is peritonealized by suturing the cut edges of the peritoneum. The iliac colon is brought out through the left corner of the parietal wound, the excess removed and the wound closed. After two days the clamp is removed to permit the escape of gas and fecal matter.

Although this operation is indicated particularly for carcinoma of the lower sigmoid or upper rectum, it may be used also for lesions higher in the sigmoid in which end to end union of the colon would be too difficult.

In a series of thirty-one cases treated by the Hartmann operation which are reported in the literature there were two deaths, a mortality of 6.5 per cent. It is still too early to judge the late results, but the first two patients operated upon by Hartmann in 1920 were alive and without recurrence. In 1927 Soupault reports three cases of his own in which he performed the operation described.

LEO M. ZIMMERMAN, M.D.

LIVER, GALL BLADDER, PANCREAS AND SPLEEN

Moynihan, Sir B. The Gall Bladder and Its Infections. *Brit. Med. J.* 1928, 1, 1.

Infection of the gall bladder may be primary, as when a solitary cholesterol stone is formed and pro-

duces inflammatory changes by obstruction or irritation or secondary, occurring through the blood stream by the lymphatic route through the bile stream (descending from the liver or ascending from the intestine) or by direct extension from a viscus to which the gall bladder is adherent.

Secondary infection of the gall bladder through the blood stream may be arterial or venous. It occurs through the cystic arteries only in case of general septicæmia. Venous infection occurs by thrombosis from the portal veins and is very rare. Infection through the lymphatic route often occurs from the liver as the result of a preceding hepatitis. Enlargement of the cystic gland is evidence of gall bladder infection.

Infection ascending from the intestine frequently has its origin in the appendix. The association of splenic disease with liver and gall bladder disease is common. Multiple stones and mud are sometimes present throughout the ducts in the liver. In such cases the author passes several small tubes up into the liver and applies the Carrel method of intermittent irrigation for several weeks.

Of a series of eighty-one cases of gall bladder infection, the condition began in the outer coat of the organ in sixty-three. Infection may reach this coat by direct extension from the liver, by lymphatic infection from the liver, or by extension from an adjacent organ such as the appendix. When infection begins within the gall bladder, the ascending route is sometimes followed. Cholecystitis is usually only a part of an infection having its origin elsewhere.

After a consideration of the pathogenesis of calculus, the author concludes that it is useless to expect to cure cholecystitis medically if the origin of the condition is on the outer coat of the gall bladder.

If medical treatment of gall bladder infection is to be of any avail, the early symptoms must be recognized. These symptoms are discussed.

Of all forms of dyspepsia, the most common form is that dependent upon the gall bladder.

When early symptoms are noted and there is no cholecystographic shadow or the shadow is diminished in opacity or delayed in its appearance, the integrity of the gall bladder may be safely suspected and a cholecystectomy performed.

The gross appearance of the gall bladder may be little changed when the microscopic involvement justifies ablation. Cholecystectomy is indicated more frequently than it is done.

MARCEL H. HOBART, M.D.

Toland, G. G. Gastro-Intestinal Symptoms Masking Gall Bladder Disease. *Californ. & West. Med.* 1918, 35, 1-42.

The author states that in the majority of cases of gastric disturbance referred to him, there is no organic lesion of the stomach. He calls attention to the atypical type of early gall bladder disease in which the symptoms are of reflex nervous origin and reports cases in which, though the clinical

symptoms were not readily attributable to the gall bladder laparotomy revealed gross pathological change in the biliary tract. In addition, the cholelithiasis, the appearance of the roentgenogram of the stomach.

The patient's fifth gallbladder and its relation to the numerous cysts in the duodenum.

The main purpose of the study is to emphasize the importance of investigation of the biliary tract in cases of biliary gastrointestinal symptoms. A detailed study of the fat that is produced in the stomach, gastritis, gastritis, and a collection of the pathological changes in the stomach. The results of gallbladder dissection.

R. G. A. M.D.

Willis B. C. Congenital Cystic Dilatation of the Common Bile Duct. J. S. 981. 43

The author states that the apparent that a number of patients with the cystic dilatation of the common bile duct is due to the failure of the pharynx to give the contraction in time. In 1904 McWhorter and his colleagues reported the first case of congenital dilatation of the common bile duct. The patient was a young man who had a history of abdominal pain and was found to have a dilated common bile duct. The patient was operated on and the dilatation was found to be congenital. The patient was cured and the dilatation was found to be congenital.

In the case of the patient, a male, the operation was performed. The patient was cured and the dilatation was found to be congenital.

Of the patient's subject, it is a case of cholelithiasis. The patient was operated on and the dilatation was found to be congenital.

Of the five cases, the first case is a male, the patient was operated on and the dilatation was found to be congenital.

If cystic dilatation is recognized, the patient is cured. The use of the patient's dilatation is a complete obstruction of the common duct. The patient is cured and the dilatation is found to be congenital.

Willis B. C. states that a twelve-year-old boy who was brought to the hospital because of pain

the abdomen. The patient had been ill until two years previously when he had a nocturnal attack of severe pain followed by soreness in the upper abdomen which required morphine. On his admission to the hospital, signs of recurrent appendicitis, small intestine, and the appendix and a Meckel's diverticulum were removed. The region of the liver and its ducts appeared to be negative. About six months later the patient was readmitted to the hospital with a history of severe epigastric pain. Between the attacks he had no discomfort and was able to eat any kind of food. There was no jaundice, belching, and the stool was not clay-colored. The preoperative diagnosis was a drop of the gallbladder. Operation revealed a cyst of the common duct which contained 400 cc of normal bile. It was impossible to dissect the cyst, but a choledochostomy was done. The patient made a successful recovery.

The usual symptom in cases of congenital cystic dilatation of the common bile duct are recurrent attacks of jaundice, pain in the upper part of the abdomen, a palpable cystic tumor, occurring during childhood or early adolescence.

G. R. A. C. M.D.

Deady O. A. A Case of Pancreatic Cyst. A. O. C. 198. 8

The history of pancreatic cysts is shown by the fact that, according to Hale White, only 5 cases were found in 608 autopsies performed at Guy's Hospital. In the present case, the patient died in 1884 to 1897.

Cysts of the pancreas are of the following type: (1) retention cysts, (2) proliferative cysts, (3) those due to congenital cystic disease, (4) dermoid cysts, (5) hydatid cysts, (6) hemorrhagic cysts, and (7) pseudocysts. The pathology is obscure.

Of 3 cases of pancreatic cysts, the first is of the pancreas, the second is in the body of the pancreas, and the third is in the entire organ.

The incidence of pancreatic cysts is about the same as that of the extirpation of the tumor, possible only in a few cases. It is difficult to beca of the inflammation of the cyst. The treatment usually adopted is the resection of the organ and drainage.

R. J. M. C. M.D.

Tapi J. Splenectomy in Pernicious Anemia and Leukemia. (L. pléim d'les m. p. 199. 99)

In the cryptogenic type of pernicious anemia, the whole hematopoietic system is involved. Splenectomy is a cure but may lead to a relapse of the symptoms. In the other method, the removal of the spleen is a cure but may lead to a relapse of the symptoms. The removal of the spleen is a cure but may lead to a relapse of the symptoms. The removal of the spleen is a cure but may lead to a relapse of the symptoms.

blood transfusion. It is contra indicated in the presence of nervous complications, a red cell count of less than 1 000 000 and a hæmoglobin value of less than 35 per cent. The aplastic type of anaemia does not respond to splenectomy.

In children the cryptogenic type of pernicious anaemia may be treated in the same way as in adults but splenectomy is less often indicated. In the pseudoleukæmic splenic anaemia of the von Jacksch-Luzet type splenectomy is indicated only exceptionally.

In leukæmias splenectomy has been practically abandoned except in cases of floating or painful spleen and those with pressure symptoms.

MICHAEL L. MASON M.D.

Spence A. W. The Results of Splenectomy for Purpura Hæmorrhagica. *Brit J Surg* 1923 xvi 466

The histological changes in the spleen in purpura hæmorrhagica are those of a general hyperplasia of the endothelial phagocytes. The prolongation of the bleeding time is associated generally with a decrease in the platelet count. The coagulation time is normal. The prolongation of the bleeding time is probably due more to a defective quality of the platelets than to a decrease in their number.

The transfusion of citrated blood may be followed by a temporary decrease in the bleeding time to normal and a temporary rise in the platelet count.

Purpura hæmorrhagica may be acute or chronic. Splenectomy is beneficial in 80.9 per cent of the chronic cases and in 16.6 per cent of the acute cases.

In most cases in which splenectomy is successful there is a decrease in the bleeding time to normal and an increase in the platelet count to or above normal. The normal number of platelets may be maintained or there may be a gradual fall to thrombocytopænia. In some cases there is no rise in the platelet count nor diminution of the bleeding time.

The immediate effect of splenectomy on the blood picture is an increase in the erythrocytes and a leucocytosis with a normal proportion of cells. The leucocyte count falls gradually.

It is suggested that purpura hæmorrhagica is a disease of the whole reticulo endothelial system and of three types depending upon the extent of the involvement of this system. The effect of splenectomy in a given case depends upon the type.

HOWARD A. MCKNIGHT M.D.

MISCELLANEOUS

Harrington S. W. Diaphragmatic Hernia. *Irel Surg* 1928 xi 386

The embryonic formation of the diaphragm predisposes to herniation at certain sites.

The symptoms of diaphragmatic hernia are varied and clinical diagnosis is difficult without the aid of roentgenological examination. Obscure symptoms in the upper part of the abdomen demand roentgenological examination of the diaphragm. X-ray examination is often helpful also in determining the site of the hernial opening.

When the diaphragmatic hernia produces mild symptoms without incarceration of viscera the patient may be kept under observation and medical management but progression of symptoms calls for operation. When there are definite attacks of obstruction due to incarceration or strangulation of abdominal viscera operation is imperative.

The operative approach may be thoracic abdominal or abdominotheracic but the abdominal route is usually best. Closure of the hernial opening is essential for the relief of symptoms. The suturing of herniated viscera to the abdominal wall or the hernial opening is palliative. Paralysis of the diaphragm by phrenic neurectomy is helpful in the closure of large hernial openings when considerable tissue has been lost.

The operative risk is not great in the eight cases reported there were no deaths. The best surgical results are obtained in the traumatic cases. In all of the three traumatic cases reported the relief of symptoms was complete. The results of the operation through an abdominal incision are satisfactory in the eight cases reported there was only one recurrence.

Millar T. M. W. Intra Abdominal Hæmorrhage in Males. *Edinburgh Med J* 1925 xxxviii 161
In Soc. Edinburgh

Millar reports three cases of intra abdominal hæmorrhage in males. In the first and second cases the hæmorrhage followed a severe crushing injury of the abdomen. In Case 1 the spleen was found free in the abdominal cavity. Following ligation of the pedicle the patient made an excellent recovery. In Case 2 that of a boy six years of age the hæmorrhage was due to a laceration of the dome of the liver. The lesion was treated by picking. The picking was removed on the seventh day without recurrence of the hæmorrhage and the boy was discharged at the end of three weeks.

In the third case the hæmorrhage occurred while the patient was straining at stool. Laparotomy revealed a pedunculated cystic leiomyoma of the posterior wall of the stomach which filled the lesser sac. The blood escaped to the general peritoneal cavity through the foramen of Winslow. Removal of the cyst after clamping of the pedicle was followed by uneventful recovery.

In each case a transfusion was given after the operation.

WILFRID I. GRAHAM M.D.

GYNECOLOGY

UTERUS

Kurz k R and Wille E G J Bi c f em t I
St dies of Itum n Sem n nd It Relat n to
t f e m c u s f t e c G r v Ut i t J Ob t &
(6)

Th bj t f the t g t h r r p t l
t t u l c t a p h f t h h m t r f t h
m n n l m u l t o p t i t f h m a
p l a l p g h t t h r t l m f b u m a n
t l t y

S men a l l t l f o m h l t h v u g m a l
h k n o i t t h h a l t h g h e a
s h l M u b t n i f m v m n h
f f m g l l n T h m u s

e m o l f m t h c l n l l y m a o f a
t l u t d h f r t l a n g o t e
t s u f f t h t t s i l e t All
p c m m l t l p t n t t h b

l u d t h x h
l h t f m t h a l m e u h d
t h a t t h c p t i m i a l t a h t h
h a a l t f t u p a l m t h l v t
l t a p p t i v p f f o r a l m

a s i t d i d t d g t t l t v j f m u h
l i a r y r i t T h l t b t c
l i l n t l r r t a i t n l v i t h c l d l t
s j i t a t l b p l p h l y b i a d n d l t
t l y l z t h a l l m m b r a T h

p m t s h i t t a h y l h n i n
t t f s b t q t h l v b a n i m
h d t g t t t t n t h a d d o f
n t a l i t y l m h y l r o g n n e c n t r a t o f

5 9 0 t j t b v n d u t l i t y t c o d t n s o f l t t l e
l g t e a t n A t h y l g i c n c e t a t n
f 7 3 7 1 8 4 t h t h a m p t m u m l y t c
t t l h t t v f t h l v b t c e d d t

d j d p t h p f p r m a t o T h
l v i a t c l b t h a n d t o T h
l t c b t t f i a b u l l t e s t i d l
T h t t v f t h l t t a s d i m s h d

b y t h p r t p t h r i a l m u c u
A L M A L L M K M D

H t l A E D f u r d t n o f t h U t e u a
C n r v t l M i n M m t n d H y p
p l t s o f t l E n d m t i u m I J O b t
6 9 8 5

T h a t h f m c t e u r g y i n
t h t a t m t f n m l g t c o d t n s o f t h e
t u i t h t b j t f o n n g t h e m e n t r u a l
f n t B e t h a v n d r a d u m h f t n
b n a l t r u t a d l s g r y h e d o s n o t
a l t h i r

T h r e t o g r u p f d i s c a s o f t h e u t e r u s
e q u i r i n g c e a t o p e r t n n m e l y M y o

m t a n l d e a s e s o f t h e e n d o m e t r i u m A s a r u l e
n t h r l f t h e m u c o a l a r e a s h o u l d b e l e f t I f t h e
p a t t h r v h e d t h e m e n o p a u s e l t t l e b j e c t
c u n b e a s s e d t h y s t e r e c t o m y P r i o r t o t h e m e n o
p u e m o n e c t o m y p r e f e r a b l e a n d e v e n i n c a s e s
o f b m o u s t u m o s a l a y p o s s i b l e i f t h e s u r
g c p r n c d I f t h e m u c o a t t h e l o w e r
p o t n o f t h u t r s i s s o m e w h a t h y p e r p l a s t i c a
c u r t t a g t h a l p e l b l a d e w i l l s o r e d c e i t t h a t
f r t b r c i e h a m o h a g v i l l b e o b v a t e d

A o r a t i o p e r a t i o n c a n b e p e r f o r m e d b y
e u t h t h b l m a l o r t h e a g i n a l r o u t e I n c a s e
f m v m f b l e e d n g o f m y s t e r i o u s o r i g i n a t
n a t h e m n p u s n d c e s n w h i c h s i f a t i o n
f t h e t u s t o t h e a n t e r i o r a b d o m n a l w a l l i s t o
f o l l v t h a b l m i n i r o t e s h o u l d b e c h o s e n T h e
a g i n a l r o u t e p r f a b l e w h n s o m e f o r m o f l o v e r
l t i o u h a t W t h s F r e u n d W e r t h e i m o p e r a t
t b e p o r m e d T h e l a t t e r i s c o n v e n i e n t
i t h e c o f f t o m e n a t o r b e y o n d t h e m e n o
p u e p a t c u l a r l y i f b e g i n n i n g m a l i g n a n c y o f t h e
f u n d u s u s p e c t e d s i n c e i f s u c h a c o n d i t i o n i s d s
o e l v a g i n a l h s t r o t o m y m a y b e s u b s t i t u t e d
f t h c o n s r a t e p r a t n A n t h e r a d a n t g e
o f t h o p a t t n i s t h t a l l f t h d e a s d t i s s u e
c o m e u d r t h v f t h s u g c o n t h u s n a b l i n g
h u m t o r o g n e a n d p e r c e r v e t h e n o m a l t i s s u e

T h t e h t q u i f t h e b d o m n a l a n d v g i n a l p r o
d u r s d c b e d v t h a i d o f i l l u s t r a t i o n

R R T M G R I E M D

Heyman J R d l g c l o r O p e r a t i e T t m e n t
f C a n c e o f t h U t u s t t d o f 9 7
3 6 3

H e y m n h a e n d e a o r e d t o c o l l e c t a l l o m p l e t
t a t t i c s p u b l i s h e d i n t h e l i t e r a t u r e p e r t a i n g t o
t h e r e s u l t s o f e x t e n d e d o p e r a t i o n s f o r c a n c e r o f t h e
u t e r u s T h e s e f i g u r s w h i c h i n c l u d e t h e
u l t i m a t e r e s u l t s o f o p e r a t i v t h r a p y h v e b e e n
p t i c a l l y c o m p u t e d a c c o r d i n g t o u n i f o r m p r i n c i p l e s
n o d e r t o d e t e r m i n e a c t l y w h a t h a s b e e n a c c m p l i h d
T h e h i g h e s t f i g u r e t h a t c a n b e r e a s o n a b l y
f e d a s r e p r e s e n t i n g t h e a b s o l u t e r e s u l t i n o p
t s s 2 0 2 p r c n t

T b t a t t i c s f r o m R a d u m h e m m t a r e b a s e d n
5 0 0 c a s f c a c i n o m a o f t h u t e r n c e r i x t r e a t d
a d i o l o g i c a l l y i n t h e f i r s t p l a c e a n d 4 1 c s s n o t
t r e d T h e m t c e v a t i v e f i g u r e f r t h e a b s l u t e
r e s u l t s t h a t c a n b e d e d u c e l f m t h e s t a t
t i c s i s 0 7 p c e n t

I n t h o t h r l f t h e p r a t i c s t a t i s t i c s r e f e r e d
t o t h e n u m b r o f o p r a b l e 5 8 6 p r c e n t r
m o r i n t h e s t a t i s t i c s f r o m R a d u m h e m m t 2 6 6
p e c e n t W t h d u e e g d t o t h s d f e r e n c e i n t h e
i n t a l m t e a l i t c a n o t b e c o s d d t o o b o l d t o
c o n c l u d t h t h e r a d i o l o g i c a l t r e a t m e n t a s p a c

tized at Radiumhemmet in respect to the absolute results in the treatment of cancer of the uterine cervix is superior to operative treatment.

Regarding the results of the treatment of operable cases alone the radiological statistics are still too small to allow of any comparison with the operative results but the figures so far available lend no support whatever to the assumption that operative therapy in these cases would have accomplished more than the radiological treatment.

The figures hitherto published regarding operative as well as radiological treatment of cancer of the corpus are still too small and incomplete to permit any definite conclusions.

Operative statistics show the absolute result to be 42.8 per cent and the results with operation in operable cases alone 58.8 per cent. The statistics from Radiumhemmet include 46 cases with an absolute result from radiological treatment of 43.5 per cent and a recovery percentage in operable cases of 60.0 per cent.

These figures seem to indicate that the same result can be attained with radiological as with operative treatment.

Capizzano N. Radium Therapy of Cancer of the Cervix of the Uterus (*Radioterapia del cancer del cuello del utero*). *Bol. Soc. de obst. y ginec. d. Buenos Aires* 927 11 517.

The author reports 216 cases of cancer of the cervix of which 73 were treated in 1924, 60 in 1925, 37 in 1926 and 46 in 1927. In 13 cases the lesion was a recurrence after a Wertheim operation and in 9 a cancer of the stump after subtotal hysterectomy. Twelve cases had been treated intensively with roentgen rays and radium. In 3 cases there was a fistula and in 3 others the lesion was complicated by pregnancy. In 117 of the cases the condition was an inoperable vegetating carcinoma and in 59 a carcinoma of the cavity. All of the 73 patients treated in 1924 were in a very serious condition. Twelve of these patients are still alive after more than three years, 10 others were still living in 1926 but have not been heard from since and 9 are dead. Nothing is known of the rest. This gives a survival for more than three years in 16.43 per cent of the cases and of more than two years in 30.14 per cent. Leaving out the hopeless cases in which radium therapy was given only to placate the patient, 12 (2.22 per cent) of 54 patients survived for more than three years and 2 (4.74 per cent) survived for more than two years.

In cases of tumor of the cavity with great infiltration the author uses a filter of 2 mm. of gold for seven days giving 40 to 50 mc. in cases of vegetating carcinoma he uses 0.5 mm. of steel.

In some cases in which radium brought about disappearance of the tumor operation was performed afterward. Of four patients treated in this way two died after the operation. In the cases complicated by pregnancy the lesion cicatrized perfectly without changing the course of the pregnancy.

Two patients were operated upon before reaching the fourth month, one of these died after the operation.

LAVLOVSKY in discussing Capizzano's paper said that in December 1924 he had reported thirty cases of cancer, fourteen of them treated with radium exclusively. These were very advanced and inoperable cases. Eleven of the patients had died but three were still living. The latter have died since. One whose condition seemed to be very favorable died of generalized abdominal metastases and cachexia two years and six months after the treatment. Since then Lavlovsky has treated three other inoperable cases. One of the patients died, the second is well and the third is in a very favorable condition. The third patient, sixty-three years of age, had an inoperable cancer of the cervix. The first series of radium treatments was given September 3, 24 and 5, 1925; the second on December 5, 1925 and the third on December 20 and 6, 1926. On November 10, 1927 the patient was in very good condition.

BENGOLIA reported that he has treated eleven cases with radium exclusively. Two of the patients died and among the nine others there were four good late results, four poor results and one mediocre result. Four of the patients are living after three years, two years, two years and one year respectively. In fourteen cases radium therapy was given before operation and the results! Bengolia to be honest is that it is preferable not to operate after radium treatment. The operation is dangerous, difficult and incomplete and tends to accelerate recurrence. Bengolia has had no experience with radium alone in operable cases but believes from experience in inoperable cases that the results would be as good as those of surgery.

CARRANZA said that he did not share the optimism which others had expressed in regard to radium treatment. He thinks that operation is preferable whenever possible and that exploratory laparotomy shows it to be possible in some cases in which it does not appear to be so clinically.

In conclusion, CAPIZZANO said that in his opinion a survival of more than three years in 16.46 per cent and of more than two years in 22.22 per cent of inoperable cases is a very good argument in favor of radium treatment and called attention to the fact that recurrences develop even after a Wertheim operation.

AUDREY G. MORGAN, M.D.

Carranza F. and Roffo A. H. Results of Deep Roentgen Therapy in Cancer of the Uterus During a Period of Five Years (*Resultado de la dioterapia profunda en el cancer de la matriz durante cinco años*). *Boletín de obst. y ginec. de Buenos Aires* 97 1 58.

Carranza and Roffo report the results of deep roentgen treatment of cancer of the uterus in 240 cases treated during the years 1923 to 1926 inclusive, dividing the patients into four groups according to the stage of development of the tumor. In

thos of the fir t goup the tumor was operable and
lmt lt the t the e of th cond group
the tum r t th lmt f j rablty n those
f th thr d g up th par metr um was inv ded
in the tu to j r bl a d in the e of the
futh g up th wa a r u condition with
h va

In 193 f t n t nt r operated upon
on t th th g p t l the e d lighten
n th th l nlt n th f rth Tbe fir t pati nt
i t l l n n St rec e l m v l t atm nt with
radum n l r t g n r v Of th patie ts of the
se n l g r p th died and th est c uld nt be
trac l alth ugh it m y be a umed th t th y ar
l al th nd t n g r wo se h le they ve
l b att Of the eighte n p tients of the
th l g r p ight h d and the r t could not be
tr l All f th pati t of the fou th g up d ed

In 194 f t y h p t nt op ated upon
Of th n n th t i g r up the e d a d two
h app a d Of in the i g r up fi e d d
and th ct h app ar d fr r th r c adition had
gr n e Of t t n t l third group
t d l an l t l di p p r el a te a log p e od
f b r atio Of t i the futh g up five
l l nd h l app a e l

I 925 th re r t pat nts n th fi t g r up
t h m d l ad on l app e d Ther ere
t nty n n th d g r up m d d and
ght d p p ar l Th e t nt in
th thir l g r up s nd l l l th t d ap
p l I th futh g p th r er el n
p t nt t l l l th t d app l

In 196 th t o patent n th fir t
g p f h l g a d th other h h s
l p a l l th n l g r up th r r th t
t pati t l l n l th r t l p p ar d
th thir l g r up th thirty s l cn of
h m d l n th e t l app a e d In th futh
g p th r f t p t t eight of h m
l l n l th r t h p p a d

I m t f th pat nt cn th of th th d
g o p the m p r m t for t m both n
th lo l n l th g n l t uo but n e v
tan th mp mnt a t m p y and e
i th m t f or ble a t d l not l s t f more
tha ght n th l n l of th ca th
t n app l th th h t log al gns of c
rr Th m d t b n l tion bet
th h t l g v l t p of l t m and th de lop
ment aft n g r d t Th a th l
l th at r t g t m t f i n r f th t us
j l v pill t v (M v M D

ADNEXAL AND PERIUTERINE CONDITIONS

Rubin I C Tub IP t e cy A Study f Ste Hty
by P u r n In uffant n and the kymo
graph J Am M d 93 99

B us g a kym graph at h d to h s i suffl
t pparat K b n h sald l mu h too k no l
l b f the f n t on a l path logi al a rat my f

the fallop an tubes In normally pat nt tubes the
i t al rise in press re is v ell unler 100 mm Hg
The fluctu ations of the mery column which con
tinue aft r the in tial drop are lue t t bal pen tal
sis Normal patency vas f und in 4 per ce t of the
cas s tudi d

The kym graph trac g f ll into f ur group
Gr up r nclud s th n mally patent cases Group
nclude the cas v h h le pre ure ses to
100 mm Hg nd i maintain d at that l vel This
s h a t e ti of the occluded tubes and vas
f u l n S s p r nt of th cas s tuded Coups
3 and 4 n lude th e as s in hich th re are ab
n mally p t nt tubes In Group 3 the in tial se
is ll above 100 mm Hg but drop harply or
gradually and t nds t slop do nard tho t
I scrib g th t p i c u r e f p r tal i as in
Group Th is ch ra t st of t r ture Gro p
4 r p e nt n t i ces of p a m with a high in tial
i foll d b dr p with more r l s sharply
d cribe l mblng the gr ph of Group r
f u p cent f the ase tuded h oved well
m k d s p m n l h y p r t o n t y In 55 per cent
th r as h g h r a l e t r t u e

Rub n ill att n t n to the hag osti s gnifi
can e of the pain n a h of five ar as In general
m l l n e su j v m p h y l p a n with h g h p e s s re
l n t s b r t n t the i th m u or near the
ut n l n U l t al or bilat r pain indicat s
b t c t i n n b th id s n the d tal part
f th tul I p i g t r i and sh uld r p a s are
p thog m c f i g in th p r t o n a l e v i t y

I th b p ill to r i at a b ette progn o s
by th d f th kymog a r p a t u c l a l y in th o e
i t a i s i h h th n t i l p r e s s u r e r i e as
bo 100 mm Hg I f r p BELL M D

F nk R T nd Goldbe ger M A Clinical Data
Obt ned with the F male S Ho m ne Blood
Test J l M t 93 6

The author bri fly revie the fundament l wo l
up n h h th r e c ncl u s o n s r e g a d i n g the female
sex horm ne blood test a e b a e d and desc be
the tech q f determ i g th p e s e n c e of the
hormone

The n mal react o ar s follo s From the
l g n a g t th tenth day before men t uation in
the n p r g n a n t condition the e s l tle or no
h mone n the circulating blood From the tenth
day on the h mone i found in higher and gh er
co cent ation seem gly p o p o r t i o n a l to th in
c e n g c t i t y of the corpus l t u m In preg
n a v t i u s ally not f und n t l the t l fth week
This ugg ts th t the pl centa m y h a e s m
th g t l th the r n wed high le el of the
ho mone n th blood Th menstrual blo l sh d
on the fist day u s ally contain a co s d v l
quant ty of the hormone but th bl od lost on the
su c e e d n g days conta n s v r y l tle

The find ngs m d in a t d y of p th logical con
d i t i o n s and the c ncl u s i o n s b e d upon them v e r e
as f llo

1 Menorrhagia metrorrhagia and puberty bleeding showed in most cases excessive ovarian activity evidenced by the presence of the hormone in the blood long after it would have disappeared in normal cases

2 Functional over activity was demonstrated in cases of premenstrual tension without excess bleeding and even in the presence of amenorrhœa

3 Amenorrhœa is of four types (a) a grave type without a cycle (b) a type with a subthreshold cyclic reaction for the presence of the hormone (c) the self limited type with impending menstruation which can be predicted from the strong positive test and (d) the type due to persistent corpus luteum The gravity of the amenorrhœa depends on the type

4 Ovulation and cyclic changes in the sexual organ may occur in women who have never menstruated

5 The test when positive permits of the determination of sex

6 Women who are sterile may probably be classified into two groups those with a normal cycle and those with depressed function In the first group other factors besides ovarian function are involved

7 Death of the fetus after the twelfth week is manifested by absence of the hormone in the blood

T FLOYD BELL M.D.

Hirst B. C. Ovarian Dysfunction Dependent on Abnormalities of the Ductless Glands 1 *J Obst & G* 6 9 8 79

The author discusses the agents and choice of treatment in cases of scanty and infrequent menstruation or complete amenorrhœa and the accompanying sterility The three specific agents that may restore or initiate a normal sex physiology are the sex hormone electrical stimulation of the pelvic organs and the stimulating dose of the X ray

With the first two agents Hirst has had experience but with the last one he has had none and has

felt reluctant to recommend it until the radical differences of opinion among roentgenologists have been reconciled

During the past year or more he has used a preparation of the sex hormone in about forty cases The results have been in some instances quite striking in others negative On the whole his results were much like those of Frank Pratt Allen and others There seems to be no rational explanation of this fact except dosage If Lowe's calculations are correct and if weight alone dictates the dose women should receive 3 000 mouse units or 600 rat units which is far as he knows they have never received It would appear that at least 100 rat units might be the initial dose to be increased steadily until something like the invariable effects in the lower animals appear If ampules containing from 25 to 35 rat units are supplied such doses seem practicable Lowe points out that the sex hormone is stable in the system and that the effect of the injections appears in mice and rats at the end of seventy two hours and that in clinical cases the injections need not be given more frequently than every other day

In regard to electrical stimulation of the pelvic organs the author feels that he is on much surer ground He has employed this agent for more than fifteen years and in some cases has secured results not to be obtained in any other way With the negative pole in the shape of a metal ball on an insulated handle resting against the cervix and a large sponge pad on the abdomen galvanism (about 12 ma.) faradism and the sinusoidal current can be applied The results have been best in cases of supernivolution but they have been encouraging also in primary amenorrhœa and lack of development except in extreme cases that were obviously hopeless Incidentally this treatment will cure permanently the most obstinate cases of constipation and hypertension dependent upon intestinal toxæmia

WILFRED M. LILNER M.D.

OBSTETRICS

PREGNANCY AND ITS COMPLICATIONS

D dd G II An Anaty f tl Re utt f tl
W mann R ct n Obtain J f om 2 000
Con ut P gnant W men J Ob t -C
B t l p q

Th r p t l a l t l th lt ol th Wa
nt t th a f o o ti p lna t
m h att d l th Ant tal Clin at the
l l b r h R l Mat t H p t l d g th
p l fr m t t t t A g t o o
Tl 30 h h Wa n r p t
th th n g t btain l l d
t gr l -t l l i nt st : g l p uti
akly p itiv i l f l nt m p l m r and
gat b t v h l p t l - d a b l g
h t h g f t p r t l d t ul
Aft t g t t t h h h th t p g v
h l t l f p th W mann r
t D dd mp th m l n f st l l th
l f t l l ths tr t l l t at l a e
f i h l Sh o l u l th t th p gnant
m n v p l f q t p t d n c
l t l l g th t th h g n th e of
t l l l th l d ath f f t u l n r of
g i t t b l b t m t t t m n y
th W m t t g th n l c l a e f th
l d th t t W m n t t th a
a f l f l l p f g t t p t
A H G J M D

l nd P A P nev L b a d th Pu
p m n a C f l l em p l l t (Emb
l t i u p d b m l l) s
i 9 44

Th p t t h a i ep t d a m
t nt ght r f ag d m t t d to th
ho t l l \ mb 6 6 Sh in an l
l t g f i k nd f r th p t t
h h l b h g p p t a i h h t
t t l l b t l d th m th t amp d
h l k f d b t l t b came u t l l b l
l h p t l a s v Sh tr t l
l t f h l j t l m l h r s m
h l l h h t t t d f f d v at a t m
but th n t d f h

O De mb v th p t nt as d l d f a
l m l h l l th t v b mal hmo
rhig f m th g t l Sh was d m s d
J 4 7 l l g t al con l t hut
l l g l t t f om time t me b c u of
h h g f m th nd gum nd at o e
t fr m th t Aft r th t r h a m o h g
t t v perf m l Sh p t d th t th e
h l l h l a t l v to b l l e l y a d at
t p l b l l th h t l

Th pat t use dently a haemophilac A daugh
te of th p t nt maternal uncle has had a tend
nev to a d hemo h g e p cially ep sta is all
h r l f Th p t t has l r y s b l d easly th
l ght t p s u o h r sk n cau ing ecchymos s
l munitio f th blood show l the typical blood
p i tur f b a m phiha hypo lobul with hvp r
l uocvto l a e d haemogl tin lymphocv
t n m l plat let r tardation of coagulat o
a i n r a e d b l d ng time

Th is th f i t as of tel cry in a haemophilac
r p t l Bu no A r s

W D V C M GAN M D

Lepem nn W Abd m n t Pr gn ncy Foll Ing
S p agial Amput t ion of the Uteru (B h
h l l l f t h p i g l Amp
t t d l t) / t l b l f Cy k 9 7 l
4 9

An n u l c of a b l o m a l p r e g n a n c e f l l o w
g p r a v g n l m p t a t i o n of the uterus i r
p t d b y L p m n n Two y a p r e v i u s l y th
p a t n t h a d h a d a l p a o t o m y p r f o r m e d for a
n t l g m n t o u c y t a d o m a w h c h v a s the s i z
f c h i l l h a d a n l h d b c o m e e t e n v e l a d
h r t t h l t of n t t a c k of p u e r p a l p e r t
t r t a l v a b f y r A t o p e r a t i o n the l e f t
t b h l b e n t p a t l a n d a s u p r v a g i n a l a m p t
t a n o f t h t p r f m e d R c o v e r y h d b n
n a n t f u l T v a r s l a t th p a t e n t b a t o
f i g r e t p n l a k n e F i e s k a h t r
f t r l t k n l a g n e s h e b r o u g h t
t h h o p t l n m b u n d c d i t i o n a n d d e d
h t l a f t l f the pouch of Douglas

Autopv l c d a n t e n v h r m p e t o n e m
(o r 3 l t) u l t g f r o m the r u p t u r e of a c i r
m a b l e t p r i n a l h a e m t o m a t h s e o f
a h l l h e d l h l i t d g h t t u b h c h a
f l t h e m t m a c n t e l a r 5 c m e m b r
l t l n t h t t r m u s t h a b a f i n e f i t u l a
t e d g f m t h t b e t h o g h t h c i c t i c l l
t t t h c r i a l c a l b t h c o u l d n o t l
l m t t d H (C)

P l a k J O Th Infl nc of F b l d n Pr g
n v n d L b r s g G O b t 9 9 l

l l k a that uterin fibroid a s e c l a t v e
l g r f t r l t v e t h e r b y i m p n g f r l t v o r b y
l i n g h a b t o n Th e r f f e c t s p r o b b l y
d e t

Th d t u r b a n c e i n the n o r m l m e n t u a l c y c l e
l e t g f r o m c r e u l t v h a g s v h c h a f f e c t the
l o m t l u l c o n t g u s t o t h f i b r o d Th s
p t u l l y d n c l n c a e s f s u b m u o s a d
t t t a l g r o v t h s v h c h d s t o t t h e c o u r f t h e

uterine cavity and produce atrophy or hypertrophy of the lining mucosa.

2. An increased muscular activity of the uterine contractions which are constant and tend to evolve the tumor in the direction of least resistance inward or outward depending upon its relation to the musculature. That this state of intermittent contraction is unfavorable to the growing ovum is evident from the fact that of the author's series of cases of pregnancy occurring in a fibroid uterus 1 per cent terminated by abortion.

Not only do fibroid influence the growth and development of the pregnant uterus but pregnancy has a like effect upon fibroids. The rapid increase in the size of fibroid during pregnancy is due to the increase in their blood supply incident to the pregnancy and their participation in the general succulence and hypertrophy of the contiguous structures. It is however the location of the fibroids which determines their effect upon the pregnancy.

A subperitoneal fibroid near the fundus may by its weight displace the uterus backward and increase it in the pelvis in such a way as to produce circulatory disturbances, nerve pressure and edema. An interstitial fibroid in the same location may produce no symptoms. Submucous fibroids however are extruded more and more into the uterine cavity thus producing a pressure atrophy in the overlying endometrium and a hypertrophy due largely to the edema in the contiguous uterine lining. Such a mucosa offers a poor surface for the embedding of the ovum and when embedding does occur placenta accreta is not unlikely to follow. Submucous fibroids also dislocate the fetus in their growth.

Tumors in the lower segment of the uterus may interfere with conception by distorting the cervix or changing the character of the uterine secretion. During labor they tend to cause malposition of the child and block delivery. In the puerperium they prevent proper drainage of the lochia.

Malpresentation of the child favoring premature rupture of the membranes, premature or dry labor, uterine inertia and mechanical dystocia are frequent complications of fibroids.

The influence of the pregnancy on fibroids must also be borne in mind. During pregnancy and the puerperium a large percentage of fibroids undergo some form of degeneration as the result of the circulatory stasis. Red degeneration of fibroids which is not uncommon represents the partial death of the tissue within the tumor with hemorrhage into the growth. Areas of such degeneration however are usually surrounded by sufficient healthy tissue to insure their recovery. The blood pigment from the hemolyzed cells unites with the necrotic cells.

During the puerperium submucous and interstitial tumors may be extruded into the cavity of the uterus and resulting infection of the necrotic mass may induce a puerperal infection with foul lochia, sepsis and hemorrhage.

Myomata may render pregnancy pathological by causing constant pain increasing the uterine con-

tractions and producing pressure symptoms, abdominal distention and cardiac digestive and pulmonary disturbances.

Subserous tumors usually do not interfere with labor unless they encroach upon the lower segment of the uterus or are subserosal or intraligamentous or become twisted, adherent or impacted in the cul de sac. Fibroids that are firmly impacted in the pelvis and displace, distort or block the cervical os may render intravaginal delivery dangerous. Intravaginal delivery through a blocked pelvis always has a high maternal mortality.

Multiple myomata in the body of the uterus have a direct influence on the character and force of the uterine contractions during labor and favor postpartum hemorrhage by causing uterine inertia. They usually delay and prolong the first stage of labor and increase the pain of the contractions. If they are situated in the lower segment of the uterus and prevent the normal presentation of the fetus they may cause early rupture of the membranes. In the third stage of labor they interfere with the separation and expulsion of the placenta.

However relatively few cases of pregnancy with fibroids require radical surgical intervention. In the author's series of 1,000 cases there were only 60 in which the position and size of the fibroid caused anxiety during the pregnancy or labor, only 6 in which removal of the tumor was necessary during the pregnancy, and only 4 in which section was required to effect delivery.

The policy should therefore be one of expectancy. When the tumor is found in the pelvis in the early months of pregnancy an attempt should be made to displace it with the patient in the knee chest position. When this fails the knee chest posture preceded by a minute or two of the milk kick three times a day should be tried. The tumor is frequently carried up and out of the pelvis by the growth of the uterus or by the retraction of the lower segment during the first stage of labor. Operation is indicated during the progress of gestation only when the tumor is incarcerated, when a pedunculated tumor becomes twisted and when a subserous growth enlarges so rapidly that it embarrasses the heart or respiration or the development of the pregnancy. In cases of red degeneration it is safer to allow the acute symptoms to subside and the pregnancy to progress than to attempt myomectomy.

During labor manipulation through the vagina is of little avail when the tumor is incarcerated and blocks the birth passage. Attempts to displace it manually may result in injury to the mother, the child and the neoplasm. It is far safer to place the patient in the knee chest position and wait for the retraction of the lower segment. If this does not lift the tumor out delivery should be effected by section followed by enucleation or hysterectomy.

All fibroids undergo some degree of atrophy immediately after delivery but many of them particularly intramural growths diminish in size and disappear during the period of involution. Submucous

pregnancy has progressed to the seventh month and the lesion is unilateral it is usually better to temporize but in a few cases the uterus should be emptied to allow proper investigation and operative interference. If bilateral renal tuberculosis is present and the pregnancy has not progressed beyond the fifth month (Dubois) abortion should be induced and the more seriously affected kidney removed. After the fifth month medical and expectant measures are indicated.

Cardiopathies. Cardiac disease complicating pregnancy is pre-eminently amenable to medical treatment. Most pregnant women with cardiac disease can be carried to or almost to term. In a few cases however the pregnancy should be interrupted. The guides to follow are the condition of the myocardium and the cardiac rhythm. Audebertin gives the indications for the induction of abortion as follows:

1 Cases with signs of grave myocardial failure dyspnoea without exertion oedema of the extremities pulmonary congestion bilateral rales enlargement of the liver and tachycardia which resist treatment. When there is mitral stenosis the prognosis without abortion is particularly unfavorable.

Cases of complete arrhythmia which do not respond to digitalis.

3 Cases of mitral stenosis without fibrillation or oedema but with constant severe tachycardia.

Pulmonary tuberculosis. The author reviews the reports on pulmonary tuberculosis in pregnancy which were made at the Congress of Geneva in 1913. He takes the stand that in the presence of this complication the rule should be to allow the pregnancy to proceed and to treat the tuberculosis. If abortion is necessary it should be induced only before the fifth month and then only when it is certain that both the mother and the child would die without it. After the fifth month abortion is associated with more danger than continuation of the pregnancy.

Laryngeal tuberculosis. If laryngeal tuberculosis is recognized in its early stages interruption of the pregnancy is indicated. When the tuberculosis is far advanced abortion will cause an exacerbation.

Tuberculous meningitis. In tuberculous meningitis abortion is indicated only if the child is viable.

Mental disease. Ordinary insanity occurring in predisposed pregnant women does not require abortion. In the true psychoses of pregnancy due to toxæmia abortion may lead to cure but there is no assurance that it will do so.

Acute hydramnion. Acute hydramnion is very rare and usually terminates in abortion. If spontaneous abortion does not occur and symptoms of dehydration appear abortion should be induced.

Uterine hæmorrhage. Spontaneous abortion often follows uterine hæmorrhage. In rare cases a retroplacental hæmorrhage occurs and demands immediate intervention. Uterine bleeding is most often due to endometritis low implantation of the placenta or hydatiform mole. Hydatiform mole is a tumor and should be removed. Severe hæmorrhage requires immediate intervention. In repeated hemor-

rhage of less severity the indications are less clear. Bonnaire favors abortion when the red cell count is 000 000 or less. A more accurate index to the anæmia is the hæmoglobin. In every day practice the pulse is the supreme guide. When the pulse under 100 an expectant course may be pursued when the pulse exceeds 100 the indications for intervention are urgent.

MICHAEL L. MASOV M.D.

Mussey R. D. Toxæmia of the Later Months of Pregnancy. Its Prophylaxis and Treatment. *Brit. Med. J.* 1915 535

Mussey discusses the ordinary treatment of toxæmia and stresses the importance of prenatal care with special attention to the diet and the prevention of an increase in weight. In severe cases of pre-eclamptic toxæmia marked improvement results from the use of ammonium chloride or ammonium nitrate as a diuretic. The accepted method of treating eclamptic convulsions include the administration of sedatives the use of lavage and laxatives to improve elimination subcutaneous intramuscular and intravenous medication and termination of the pregnancy. The question is raised regarding the advisability of cesarean section as a method of rapid delivery in cases of pre-eclamptic toxæmia and eclampsia in the absence of dystocia and other obstetrical indications.

Paramore R. H. Chronic Nephritis. Accidental Hæmorrhage and Eclampsia. *J. Obst. & G. & Brit. E.* p. 192 1915

Paramore states that chronic nephritis, accidental hæmorrhage and eclampsia are interrelated and when a woman with chronic nephritis becomes pregnant if abortion or miscarriage does not occur she may eventually become eclamptic or uræmic. In accidental hæmorrhage albuminuria may appear and eclampsia develop even if no evidence of renal disease existed previously.

While the complication of pregnancy in women with chronic nephritis can be attributed to the nephritis toxæmia following accidental hæmorrhage is believed to be due to a cause other than renal insufficiency.

The outstanding feature of pre-eclampsia is a diminished output of urine. Eclampsia and diuresis are incompatible. When women with chronic nephritis become pregnant they rarely become eclamptic. Eclampsia does not depend on inefficient kidneys alone it requires also inefficiency of the liver.

The clinical differentiation between eclampsia and uræmia is often impossible. A study of the postpartal progress is frequently necessary before a diagnosis can be made.

In the endeavor to distinguish between these two clinical entities attention was directed to the state of the blood. In general the blood pictures are different. In eclampsia the non-protein nitrogen of the blood is not greatly raised in uræmia the increase is marked. As the non-protein nitrogen of the blood in eclampsia is only slightly different from the

normal the conclusion has been drawn that clamping of the umbilical cord is not due to an increase of the products of the blood nor to a primary defect of the circulatory system.

The author also discusses in detail the abortion from the intestinal tract and peripheral tumors and its importance in pregnancy.

He believes that the lamps of the placenta are important in the pathogenesis of the hemorrhage. He emphasizes the importance of the placenta in the production of the blood due to the placenta.

He also discusses the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta.

He also discusses the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta. He also discusses the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta.

Mus. y. R. D. and C. n. J. F. Operations. f. N. s. l. y. Du. ng. P. gn. 1. 1. 1. 9. 7.

The author points out the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta. He also discusses the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta.

He also discusses the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta. He also discusses the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta.

occurred if the patient is not pregnant. Intraluminal perforations should not be performed after the first month if they can be avoided.

In the postoperative treatment a hypodermic injection of from 6 to 4 g (0.1 to 0.6 gm) of morphine is given every four hours for the first three days. The amount and frequency of the drug being the guide.

The patient is kept in bed until the fifth or sixth day. A mild nuxvomine emulsion about 0.6 gm of the drug is given on the third fourth night. A full light diet is begun by the 5th day (48 gm). The usual postoperative treatment is given.

Operation should be deferred until after confinement. In some cases operation is performed at the fifth month of gestation with the fetus in the uterus.

An operation is rarely necessary. The removal of a large cyst of the ovary is done. The removal of the mother's placenta is not attempted. Cesarean section is performed if necessary. The removal of the mother's placenta is not attempted.

LABOR AND ITS COMPLICATIONS

G. B. N. R. A. T. C. u. at. n. of. the. On. s. t. of. L. b. o. J. O. i. C. B. i. E. p. 9. 7. 739.

After the first three or four months of the onset of labor beginning with the day and night. The G. B. N. R. A. T. C. u. at. n. of. the. On. s. t. of. L. b. o. J. O. i. C. B. i. E. p. 9. 7. 739.

The author points out the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta. He also discusses the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta.

V. n. A. u. k. e. n. W. B. D. M. p. h. n. and M. g. n. e. s. u. m. S. u. l. p. h. i. n. f. i. l. t. a. t. i. o. n. C. l. i. n. i. c. a. l. E. t. i. o. n. I. n. t. e. r. n. a. t. i. o. n. a. l. T. h. y. N. o. n. C. o. n. c. u. t. e. L. a. b. o. r. C. a. s. e. S. t. u. d. y. J. M. J. 4.

Of the twenty-nine operative cases of labor in which the author studied the effect of synthetic analgesics on the mother and the fetus. The results are as follows: The author points out the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta. He also discusses the importance of the placenta in the production of the blood due to the placenta. He emphasizes the importance of the placenta in the production of the blood due to the placenta.

Twenty-five women were definitely relieved of pain from the time of the onset of labor.

relieved (one expelled part of the retention enema) In two cases the relief was doubtful one patient was a neurosthenic and the other did not receive sufficient treatment In even cases there was no apparent relief One of these seven expelled a large amount of the retention enema four others were given only the first injection as the treatments were started too late for the administration of the oil ether Four of the thirty nine labors were apparently delayed by the treatment and one went out of labor The latter was a multipara who had had in frequent pains for seven hours preceding the initial hypodermic containing 1.6 gr of morphine with 5 cm of magnesium sulphate At the time of the injection the cervix was soft and dilated two and one half fingers and pains were occurring every five minutes and lasting thirty seconds The pelvis was normal and the vertex at the superior strait was in a left occiput posterior transverse position The only complication was fibroids in the lower uterine segment The record states that the hypodermic was apparently given too early

The average duration of labor in the entire series was fifteen hours and sixteen minutes In the multiparae the average duration was fourteen hours and twelve minutes and in the primiparae sixteen hours and twenty minutes

In conclusion the author submits the reports of seven obstetricians outside of New York In a total of 642 cases the method was successful in 6 per cent partially successful in 21 per cent and unsuccessful in 72 per cent In a series of 180 cases it was successful in all In a series of 200 cases it was successful in 70 per cent partially successful in 26 per cent and unsuccessful in 4 per cent The poorest results were obtained in a series of 50 cases in which the anesthesia was satisfactory in only 34 per cent partially satisfactory in 36 per cent and poor in 30 per cent The poor results were attributed to in duction of the rectal anesthesia at the wrong time

PETER GRAFF, M.D.

Bohnen P A Case of Rupture of the Aorta During Labor and a Case of Defect of the Septum (Ueber einen Fall von Aortenruptur unter der Geburt und einen Fall von Septumdefekt) *Zentralblatt für Gynäkologie* 1927 li 398

The first case reported by the author was that of a primipara aged twenty six years who was brought to the hospital in the ninth month of pregnancy with strong labor pains The history the dyspnea and the loud systolic murmur over all of the valves indicated the presence of a cardiac defect Shortly after admission to the hospital the patient suddenly raised her left collapsed and died A cesarean section was done but the child was found dead The autopsy report stated that the mother's death was due to rupture of the aorta above the valves and at the aortic arch hemopericardium and severe general arterio sclerosis especially in the abdominal aorta and the arteries at the base of the brain The most important factor causing the rup-

ture was the hypertension produced in the injured vascular system during the labor which was increased as the result of an arteriosclerotic contracted condition of one kidney and hypoplasia of the other

The second case which Bohnen reports was that of a primipara twenty one years of age who with an existing defect of the septum went through delivery quite satisfactorily except for a transitory atony after expulsion of the placenta (low forceps delivery) Death occurred on the third day of the puerperium The defect of the septum was demonstrated at autopsy

BOHNEN (G)

Rascol Delivery Expedited by Means of Large Median Anterior and Posterior Incisions Made in the Cervix at the Onset of Dilatation Because of Fetal Distress (Accouchement brusqué au moyen de grandes incisions médianes antérieures et postérieures du col tout à fait au début de la dilatation pour soulagement fetal) *Bull Société d'obstétrique et de gynécologie* 1927 1 555

Rascol reports the case of a primipara four days past term With the onset of slight pains the membranes had ruptured spontaneously When the patient was seen by Rascol soon thereafter the fetal heart tones were irregular and scarcely perceptible and could not be counted Examination revealed a dilatation of 1 cm a deeply engaged head and a very thin soft cervix

A deep incision was made in the midline of the anterior and posterior lip of the cervix and the baby immediately extracted Ten minutes were required to accomplish resuscitation Severe hemorrhage occurred as the result of uterine inertia but there was no bleeding from the cervical incision

Examination of the patient at the time of her discharge revealed no trace of the incision in the posterior lip and only a notch of about 1 cm in the anterior lip

C. G. RICH C. SCHAFER, M.D.

Rascol Three Cases of Median Anterior and Posterior Incisions Made in the Cervix in the Course of Labor Prolonged by Rigidity of the Cervix (Trois cas d'incision médianes antérieures et postérieures du col au cours de l'accouchement dystociques par rigidité du col) *Bull Société d'obstétrique et de gynécologie* 1927 1 59

Rascol reports three cases in which anterior and posterior incisions were made in the cervix prior to delivery as recommended by Audebert The dilatation varied from 3 to 5 cm the cervixes were very rigid and infiltrated the labors were prolonged and morphine was ineffectual In two cases the head was low but in one case it was high and the pelvis was contracted Though the incisions can be made with comparative exactness by touch alone the use of a double blade speculum and a Museux forceps is very helpful

No complications resulting from this procedure have been observed In two cases examination twenty days after delivery revealed that healing had not yet occurred but in one case no trace of the incisions remained at the end of that time

X-ray examination should always be made in cases of suspected disproportion

ROBERT M. GRIER, M.D.

PUERPERIUM AND ITS COMPLICATIONS

Zillboorg G. Malignant Psychoses Related to Childbirth. *J Obst Gynec* 1918; 14.

The author stresses the fact that the term "puerperal psychosis" connotes merely a mental disorder occurring in relation to and usually following childbirth and that there is no definite clinical entity to be classified under this heading. Disregarding the toxic and infectious psychoses which are the same in pregnant and parturient women as in other subjects, both male and female, he raises the question as to the etiology of the so-called idiopathic group. It is possible that the psychic resistance of women with such psychoses is too low to withstand the strain of childbirth. The women therefore should exhibit signs of low resistance which might be recognized before the development of a definite mental disease.

Zillboorg has made a search for signs of low resistance in malignant i.e. chronic and incurable psychoses and gives detailed histories of four typical cases. He concludes that the patient likely to develop a psychosis during pregnancy or shortly after its termination will frequently manifest a personality of the schizoid type, prominent elements in the history being a story of premarital shyness and of persistent frigidity after marriage. Hints of childhood such as enuresis or masturbation may be carried over into adult life, showing an arrest in the psychophysiological development. An antagonism toward the husband may develop during pregnancy and is invariably observed in every puerperal case of the type under discussion. When a woman of this type has weathered one pregnancy successfully, her postpartum reactions should be studied very carefully as another pregnancy, if permitted, might precipitate a malignant psychosis. This occurred in one of the cases reported.

E. L. KING, M.D.

Seymour H. F. A Case of Pneumococcal Peritonitis During the Puerperium with Recovery. *J Obst Gynec Brit Emp* 1917; 14: 793.

Seymour reports a case of pneumococcal peritonitis which developed on the ninth day following a normal delivery. On the sixth day the patient was given 5 gr. of bibrodichloride of quinine intramuscularly and 60 c.c.m. of polyvalent antistreptococcal serum, as it was believed that the case was one of streptococcal infection.

On the ninth day a diagnosis of peritonitis was made and the abdomen was opened and drained. A culture taken at this time showed pneumococci. Convalescence was greatly prolonged, the fever persisting for about six weeks.

Seymour has found only one similar case reported in the literature. A. H. GLADEN, JR., M.D.

Latzko W. The Surgical Treatment of Puerperal Processes (La terapéutica quirúrgica de los procesos puerperales). *Arg Argent de Obst y Ginec* 1917; 1: 97.

The first extirpation of the uterus in puerperal infection was performed in 1886 by Schultze in a case of putrid placenta which could not be removed in any other way. The extirpation was supravaginal.

Theoretically the operation is justifiable because if the infection is still localized, removal of the uterus will prevent generalization of the disease. However it is extremely difficult to determine whether the infection is still localized. Latzko believes that supravaginal amputation is justified in cases with continued high fever and chills. Extirpation in puerperal sepsis requires particular care on account of the great virulence of the contents of the uterus.

Puerperal pyemia is treated surgically also by ligation of the veins. Latzko presented his first case of ligation of the veins for puerperal pyemia before the Medical Society of Vienna in 1905 and in 1910 he was able to report thirty-seven cases. Ligation of the veins has become an important part of his operative technique.

Puerperal pyemia should not be confused with metrophlebitis. The latter is a local condition whereas the former is general. It is difficult in an extirpation of the uterus to determine just the right moment at which to perform the operation, but as these processes are chronic haste is not urgent. At first Latzko ligated the hypogastric but he now prefers to ligate the common and external iliac because this does not cause thrombosis of the foot. If both uterine venous plexuses are thrombosed or if the thrombosis has extended to the common iliac, the vena cava may be ligated. Kohn in 1923 collected from the literature the reports of seven cases in which ligation of the vena cava was done with recovery in four.

The author believes that operation should immediately follow a diagnosis of puerperal peritonitis just as cases of rupture of an extrauterine pregnancy. The object of operation in puerperal peritonitis is to evacuate the fluid containing the toxins and virulent bacteria to overcome the meteorism and intestinal paralysis and to treat the weakness of the circulation that follows the peritonitis. Generally the primary focus is not eliminated as the patients are not able to stand the operation.

Latzko operates under light ether and the patient without the Trendelenburg position. When there is great meteorism of the large intestine, the intestine may be punctured and the puncture sutured. Intense meteorism of the small intestine may be treated by the formation of a Witzel fistula. These procedures are generally not necessary.

After having sponged out the exudate, Latzko irrigates the abdomen with 500 gm. of ether. For drainage he uses a coffee-drum drain which is similar to the rubber drum used in dentistry. The abdominal wound is closed except for the drainage opening and the patient then placed in Fowler's position.

of newborn infants are separated from their mothers despite the measures that have been taken to discourage the practice. He believes that more aggressive measures should be taken not only by the State but also by the members of the medical profession.

Many mothers abandon their babies because of shame or poverty, making no attempt to see that they are placed so that they will receive proper care. The number of abandoned babies is still astounding in spite of the fact that it has slightly diminished. In the Department of the Rhone the number dropped from 452 in 1911 to 377 in 1913. The mortality among these infants is very high, averaging about 40 per cent.

The number of infants placed in nurseries or homes shortly after birth seems to be increasing. It appears that in Paris one of every five infants is placed in a nursery. The lack of proper care and feeding in many such establishments is attested by the fact that of 10,000 infants so placed in the period from 1920 to 1926 only 1,701 (1 per cent) were breast fed. The mortality of infants cared for in nurseries is at least double that of infants cared for by their mothers.

Many mothers are of course ignorant of the dangers of artificial feeding and do not realize the claims that their children have upon them. Social conditions also play an important role. In many instances the mother must work and is obliged to place her child in a nursery because she finds it impossible or inconvenient to keep it with her. Poverty is an important factor. In some cases the lack of proper housing is responsible for the placing of a child in an institution. In a few instances of course, as when the mother is suffering from tuberculosis, dementia or puerperal psychosis, separation of the mother and child is advisable.

There are a number of establishments at present which attempt to better the condition of babies left without maternal care but these tend to encourage rather than discourage the separation of mother and child. In many of these nurseries wet nurses are provided so that the infant receives some mother's milk, but it is found that the wet nurse's child does better than the stranger. In most of these nurseries artificial feeding is practised exclusively and the mortality among the infants is high. The best plan seems to be to place the child in a private home where it will receive a mother's care and will be under the supervision of a physician and visiting nurse.

Rhenter classifies the measures adopted or suggested to discourage or prevent the separation of

mother and child into three groups: the psychological and moral, the legal and the institutional. He believes that every physician should aid in the campaign for the education of prospective mothers. Prospective mothers should have impressed upon them the great value to the child of proper care and maternal feeding. In some hospitals the mother is required to nurse her child for fifteen days after delivery and it is found that during this time she often becomes so attached to it that she will not consider separation. Some lying-in hospitals have associated nurseries to which the mother may go for a time after delivery.

Legally the greatest help would be assured by some measure which would give financial aid to nursing mothers. There is at present an act which gives each working mother who is nursing an infant two periods of one half hour each during her working day when she may feed her child.

There are now certain charitable institutions where a nursing mother may receive food. Many of the larger industrial institutions give financial aid to the families of their employees when a child is born and regularly increase the pay of the employee with each addition to his family. Postnatal clinics in connection with prenatal and maternity clinics are of great value.

The working mother presents problems which are solved in various ways. If the child can be left at home in the care of some member of the family while the mother goes to work, it can be given two artificial feedings during the mother's absence. The results of this plan are excellent. If home conditions do not permit such an arrangement, the child may be placed in a day nursery. Day nurseries should be under very strict surveillance. In Paris about fifty large factories and similar establishments provide facilities which make it possible for the mother to bring her child to work with her and nurse it during the day. This plan is excellent and should be encouraged.

When the mother is without a home, the child is usually illegitimate. For such cases various types of maternal homes have been founded. In some of these the mother is delivered and may remain for a time. Others are connected with maternity hospitals while still others have no connection with a maternity hospital but care for the mother and child for from three to eight months.

Hunter believes that more use should be made of the means at hand that further aid from the state should be forthcoming and that there should be more widespread education of prospective mothers.

MICHAEL J. MACKENZIE

GENITO-URINARY SURGERY

ADRENAL KIDNEY AND URETER

McKenzie D W nd Hla th n A B Unl
 te al Renat Aptas a s g G O t
 9 8 1 4

th tl lll the t n e l aph a t
 mlt l r mpt l l pm t of a
 kl They ref rt i cie -thr en m l unl
 tl in f m l The age f the patient r g l
 i t f t l f f the x c c th
 fl th l ft l Th smpt m hi h
 l tl pt t t eck me h al lv r
 ull the l f the main g kid but
 thr the d n t p th il of the
 l ti kl v l n i th m th p a
 f q b g l f u a du t f ct
 ftl l t v kl
 ll r at l g t l b n l tie i
 f tl p t t l f l of a
 u tral rh e c ld b f l r g f the
 bl ler th u th th v g a l th
 thr a a h t ul t v ur ter l h
 p t t f m l t l t th ulm t v
 u t eul l bl lly t t ne a t t u l
 t hbr l t t h l t the pl t kl v
 t u th t e a L i c f l t
 f u l t f th
 The liff t t b t l l l ail
 ia t pl l l ult t k h l g ll
 O t l f th t t k l y t fhy
 i th kl v th uully m d c f
 u ter an l l H l s v M D

D l l W R d H l F W El n c s of
 R ptu d Kidn y J t l s v s

The pit nt vl ar v ead by th
 a th r m l g g n ge f m th r n t
 r t v i a In ght a s the ght kl n a
 r l l f t c th rupt r as ca d l v
 ta a Sight l nav a pt r of th
 k l n h th h n n a t t f hyd h
 t
 l t a tl t tur f th kidn y v c m
 pl t d b a f a t i th l f t n th b a d m
 t th th t t k d th n l smpt m
 f r m t m l t g b m v b of i p t
 th pr d t f l u p t r K dnev m v l c
 f t d l y b i g ca ght b t en th i h l
 t b a l n f the e r ed th k l v
 r pt l p n t a l v f t s c l attacks f
 il l c g o r a p o f e n cars
 l th ul t e p pr ed ng th ptu e n
 f t n l a d a m p o t t p r R ptu d v t
 f t d h v r n ph l tub l f
 tl k l u p t d f t and t m m v

ve t butt g f tors Pathological and d:
 t n l d k d n v a e more easily ruptured than nor
 m l u d i t n d d kidn v s

K lney uptu e may l e ben gn or gra e l s v
 of the a s r i w d the lesion healed under
 p t n t t m n t The ho pitalization time
 e a g d n n e lay Pr marly benign l sions may
 becom e rious if th v b come infected The sever
 ty f th c d t o depends upon the renal area
 aff ct l A mall l c ration in the renal pel is may
 llo alarmin tra i ation nd a small lace a
 ti i lag e el mav cause a fatal haemorrhage
 wh as lag r t ar in the cortex specially if it
 ubcap la m v b be gi

Th mpt m th cases reported were pain
 t l ne h mat ria nausea and vomit g
 kn pallor abd m n l w lli g and ecchy
 mo i Th haemo hage was accompan d by pallor
 in all c e d by sho k in t o The erythrocyte
 o t g cl f om 000 000 to 4 000 000 The
 ha n g l b n d bl d p e s u ere corre p d
 n l v l u h d l the pul c rate wa accelerated
 l h l t nt ared from 13 to 180

pt in ca econd ily infected which
 h l 4 6 o l u v t th a pr ponderance of
 polym pl n l ar Th temperature was not
 h g l u n t d It bcc me bnormal as a

clt f h k l h d a cha a t t ic el a
 t n lue t b p tion Na sex and vomit g
 o urr in t l a s In e ase n hich they
 re m p l b y o th ign of p r to al t
 tat bd m n al p n t nd ness and rigid ty
 th v l d t an r r n ous d nosis Unl te al
 r g l ty f th t l m l m u cle as present in all
 G n r d i d g d ty occu ed t ice In o e
 a m nati n led a l a e a e of ecchy mo
 si i th l f t fl nk a d a large m ss in the upper
 ght q drant One n t e n t sh d symptoms of
 p in l e x t r a a t n

Th smpt m appea d m m d iately or i th in
 o h u ven ca and i fr m s t e ght h u r s
 t Th pati t e able to go h me
 fr r th i j u y On p t n t p e e n t e d no symptoms
 fr r t n d v alth gh th kidn y as completely
 d d l

I th b ign e smptomat c and s p p o t e
 tr atm nt g v n M r ph n was dm n t e r e d
 t l th p in du n r y a n t s p t v e r e u s e d
 t pr t n f c n Subp t l i j t o n of aline
 l u t u g n h n n d a t d Operation was
 n v i th traum tic ca e In the frst the
 upp p l e s l and to be completely shattered No
 l h haemor hage occu d at p e ation Th lot
 l k d v f a m e t w e e m o l Secondary
 m f t n f l l o l Th kl y w s s a d by the
 early su c l n t e r f r n c e

In the second case an intraperitoneal injury was suspected. Operation revealed a bulging of the ascending colon and the peritoneum beneath it. The right kidney showed a laceration at the middle of the upper half. The wound was bleeding freely but the renal pelvis was not involved. The hemorrhage was controlled by suture of the kidney. Recovery followed.

The third case required nephrectomy because of persistent bleeding for eight days. Pyelography revealed a severe injury of the kidney. The organ was embedded in clot and fibrin and showed several lacerations with marked injury of the pelvis. Recovery resulted.

Cases with a persistent decrease in the blood pressure and erythrocyte count and an increasing pulse rate should be operated upon. Those with only slight pain and evidence of secondary hemorrhage and with hematuria as the chief symptom may be treated expectantly in a hospital and kept under close observation until the hematuria subsides. Cystoscopy is usually not necessary for diagnosis but should be done in occasional cases to determine the condition of the damaged kidney. In selected cases pyelography is an aid. A moderate leucocytosis (13,000 to 18,000) may not indicate infection as it may be due to absorption of the blood clot and secondary anemia.

It is safer to investigate doubtful cases under regional anesthesia than to treat them expectantly. Regional anesthesia has the advantage of not increasing the blood pressure. Operation is indicated to prevent exsanguination, extravasation and infection. The morbidity depends more upon the state of shock and subsequent infection than upon the amount of the secondary hemorrhage.

LOUIS NEUFELT, M.D.

Cumming, R. E. Polycystic Kidney Disease. *J. Urol.* 1928, xiv, 149.

Cumming says that a patient with polycystic kidneys is as old as the cyst development. When the cysts reach a certain stage they are ripe and life is no longer possible. The completely developed disease has been found at birth as well as in old age. In the examination of the patient all diagnostic maneuvers must be made with the utmost care. Simultaneous catheterization of both ureters is dangerous and bilateral pyelography is definitely contra-indicated.

The pelvis of a polycystic kidney is rarely dilated but is usually narrow and lengthened in contrast to that of the hydronephrotic kidney. The cysts of the polycystic kidney are closed while those of the hydronephrotic kidney are in communication with one another. Polycystic disease is always bilateral but may be more developed on one side than on the other. Frequently it is associated with deformities in the skeleton and in other organs especially the liver.

Retention alone does not explain the cyst formation. The condition is the result of a partial arrest

of development at the mesonephric stage followed by degenerative changes. In adult life the cysts contain blood pus and evidences of infection. According to Braunschweig hematuria is a definite sign in 40 per cent of the cases.

The etiological factor is an inherited protoplasmic insufficiency which is manifested by delayed differentiation of cellular unit structure. A familial history is of great diagnostic value.

The condition causes pain, hematuria, albuminuria and a palpable tumor. Pyelography shows the renal pelvis to be elongated but not dilated. The urine is abundant and of low specific gravity. At any time a fatal uræmia may develop.

The treatment is largely medical—regulation of the patient's diet and habits and the prevention of excesses and exposure. Conservatism is fundamental because surgery offers but little. Even the evacuation of the cysts advised by Rossignol seems a hopeless task. A stubborn hematuria may be checked by catheter drainage and the use of a weak solution of silver nitrate. Intensive accessory elimination is important.

The author's conclusions are based upon thirty-one cases of his own and four cases reported by Lowley.

BENJAMIN F. RILLER, M.D.

Thomas, G. J. and Kinsella, T. I. Some Data Concerning the Clinical Course of Renal Tuberculosis. *J. Urol.* 1928, xiv, 155.

The conclusions in this article are based on a study of about 4,500 urine specimens and 660 guinea pig inoculations. The material was obtained from a hospital devoted to the study and care of patients with tuberculosis in which each patient whose urine contains leucocytes, pus cells, numerous epithelial cells or other pathological elements is put through the following routine.

The genitalia are cleansed and a voided specimen is examined. If the same findings are then made six specimens, one each week, are injected into the same guinea pig. Two of these are twenty-four hour specimens. Six weeks after the last injection the guinea pig is killed and examined grossly and microscopically. The same sediment may give positive findings in a smear and negative results on guinea pig inoculation. Large ureteral urines are carefully studied. Pyelograms are made unless contra-indicated.

Patients with extra-urinary tuberculosis may have a renal infection. An active early renal infection may be present without characteristic symptoms. The lesion may be so small that it does not appear in a pyelogram. With the healing of the lesion the urine may become negative. The kidney may become reinfected or the original lesion may become active. The early non-destructive lesion is difficult if not impossible to diagnose.

The authors report three cases of clinically gross or destructive lesions which became quiescent under treatment with rest. In each case nephrectomy had been refused.

thorough inspection but the wound was closed from without. Suprapubic and urethral drainage was established. On the twelfth day urination was entirely normal.

The second case was that of a girl four years old who was also injured in an automobile accident. Physical examination revealed bruises in the region of both hips and slight bleeding from the vagina. The entire abdomen was rigid but the rigidity was most marked on the left side. There were no signs of free fluid or gas in the peritoneal cavity. X-ray examination revealed a fracture of the right ischium without displacement. A catheter in the urethra drained only a small amount of blood fluid introduced could not be recovered. A diagnosis of extra peritoneal rupture of the bladder was made.

At operation there was no evidence of intra peritoneal injury. The preperitoneal tissues were suffused with blood. The bladder presented in the midline above the pelvic brim and the urethra was completely torn across just distal to the bladder. The internal sphincter was intact. The bladder contained about 60 ccm of clear urine. The vaginal walls showed severe lacerations a far as the cervix and the pelvic fascia was severely lacerated and bleeding profusely. The bladder was drawn down into position by means of a catheter introduced through the external urethral orifice and fixed with catgut. The pelvis was then packed with gauze and the wound closed. Convalescence was somewhat disturbed and on discharge from the hospital the patient had incontinence of urine. At another operation an attempt will be made to reconstruct the urethra by means of a plastic procedure.

CLAUDE D HOMES MD

Crobot H. Catheter Cystitis—A Misnomer. *J Indiana State Med Soc* 1928 vii 1

The author believes that the technique of the surgeon and not the catheter is the essential factor in the production of so called catheter cystitis.

In cases of reflex retention of urine such as occurs after operation or severe injury catheter cystitis is of frequent occurrence. In such cases the reflex mechanism of the bladder is temporarily deranged and although the bladder is known to be uninfected and the urinary tract normal reflex retention and overdistention follow. The catheter is used and infection results in from 15 to 20 per cent of the cases.

An overdistended bladder furnishes a prepared soil for the growth of bacteria. Therefore overdistention should be prevented. The average normal capacity of the bladder is believed to be 10 oz. Routine emptying of the bladder should be done when this point has been reached. Of course this can be only guessed at but the surgeon should watch the second six hour postoperative period rather than the third and anticipate the development of overdistention. If infection occurs when this plan is followed it may be expected to disappear.

THOMAS T. FINEGAN MD

Ormond J. K. Diversion of the Urine in Intracutaneous and Incurable Vesical Tuberculosis. *J Urol* 1928 xix 109

Four conditions in which vesical tuberculosis may resist local treatment to the extent that some form of operative intervention becomes necessary are: (1) bilateral renal tuberculosis, (2) tuberculosis of the kidney remaining after nephrectomy, (3) intracutaneous cystitis following nephrectomy with possible stricture of the orifice and hydronephrosis of the remaining kidney, and (4) advanced genital tuberculosis in the male.

The end results may be considered satisfactory only when the pain is relieved, the patient can be kept dry and free from odor, and the apparatus used is inconspicuous and easily applied.

The author mentions eight procedures but regards inguinal ureterostomy as the method of choice in most cases. He reports a case in which tuberculosis was found in the kidney remaining after a nephrectomy performed three years previously. The dilated ureter was cut across as near the bladder as possible and the end implanted in the wound in the inguinal region. Relief has been complete. Before the operation the two hour phthalbum output could not be read. Five months after the operation it was 1 per cent. The patient's general condition has improved to such an extent that she is able to continue her work. The urine drains into a bag through a rubber catheter which is inserted in the wound.

Inguinal ureterostomy is simple quickly performed and comparatively free from danger. The fistula is easy to care for.

In exceptional cases fowel implantation may be justifiable but is associated with much greater risk.

CLAUDE D. PICKRELL MD

Hager B. H. and Magath T. B. The Formation of Vesical Calculi. *J Am Med Ass* 1928 xc 66

The authors report cases of urinary lithiasis in which proteus ammoniae was isolated and adduce evidence that under favorable conditions calculi can be produced in the bladder experimentally by means of proteus ammoniae. They suggest that a deficiency of Vitamin A may be favorable to the implantation of proteus ammoniae.

Kreutzmann H. A. R. The Cause of Renal Back Pressure in Obstructive Lesions of the Urethra and Bladder Neck. *J Urol* 1928 ix 199

The author reports investigations carried out to determine the cause of dilatation of the upper part of the urinary tract in cases of obstructive lesions of the neck of the bladder and the urethra in adults. Cystograms and pyelograms were made in cases of prostatic hypertrophy and long standing strictures of the urethra. The pathological changes and method of formation of organic changes in these conditions are practically identical. In some of the cases a marked thickening of the wall of the bladder was found. Great difficulty was experienced in

l g a t r l cath t r through the t am r l
j r t f th t a l e r a l n a n c e s p s t
t m m t l l d d t c t h i c k n i n g
f t l l t l r t t t h p o t h t p e d
thr up l t l l l d t t r l p o r t o n k e f l u
t l t f l t l t a u l l v l
t t h t l e u t h l a v t h e f l l o n g
l l l t m a l a l n t a p m a v p h
m t t t c h y e t p h y a l u t h a l
t t A t r i t n n t h t a m l p t n o f
th t t l l t t l t h u p p u n v
t t
3 l h t t n l t h p t p h o l t h
l l l l t r u u n l g l u t e
V I M M D

B l t t R p t u e f t l e U t h R / J S t

l t t t s f u p t l t h u r t h r a
t l f t h l l b t t o t h o m p r s r
t l l f l t i n c m p l t d t t
t l l t t h a l r t h a b l e d g l o m
th t l h m t l t h p n u m M o t
t l l p t l b y n j u r i s t t l
f l m t l c b a u t u l t h
t t f t l t h u r t h r t m p h a z
th l b l t l t h f t t a t h t r
l t h l l t f p p b t o s t o m
l h f t t m t t p d p m a l u j n
l t k g t h f l f l m t h m l
l l t l t h t h u j p i b t l T k
f t n l t p b i v t t m y d r n
l l t t h l l d l t h a
f l l t r s a t d t h t h k
f t l l t f m t f a r t a u m a t i
t t

l t a p l p t r f t h u t h s
L t a t f r l v e l t l h p t r
m t t h f f t h p t t e t h m a v
b t p t l t l t h l l d t h
m m l t t a t m t p j b c t t m a n l
l f t l f f R t u

In f l k l l p l m t l t l p t t i c
r t h a t t m i t h l l b m l t o j n t h
l s t a l l m l f l t l t h t t h t m
f l t l h m j r l f l t n t h a c i
h k l f t l g l n l t n l r l v a m p
p l p j b i t t l d a g h u l l b e
t m p l A a l t h g l o n l t o n t
f l c t l g l l l t h l s t a g f t h
o p a t n a r l h f o t b u
f l l l g t h t f t n t h l y v t
n c t l t l l p m l p t n o f t h
u t r b k l d p l m t A c t h e t r m a v
b t l t h g h t h p c i n t l u p n t n
t h p t n l l t h t n a l l o c a t d b
m a f i p l a d t h r o g h t h p r o s t a t
u t h a l h a t t n t h p e n l e p o t n m a y t h n

be n e r t e d i n t o t h e b l a d d e r o r t h e c a t h e t e r m a y
b e b r i g h t o u t t h r o u g h a n i n c i s o n m a d e i n t h e
p r u n u m

T l a u t h o r e m p h a s i s t h a t t h e o n l y i n d i c a t i o n
f o r t h u f t h e t e n t i o n c a t h e t e r i n i n j u r e s o f
t h u r t h r a i s a c o m p l e t i n t r a p e r i c r u p t u r e T h e
o b j e c t n t t h t e t o n a t h e t e r i n t h e t r e a t m e n t
o f l i o n o f t h b u l b u r e t h r a — i t s s t i m u l a t i n g
a f t o n t h l m t i o o f f b o u s t i u e — i s n o t
v a l i n t h c a s e f t h e m e m b r a n o u r t h r a s t h e
l t t e r h l t t l t e n d n e v t o a r d t r i c t u r e f r m a
t n

T h r k l k d l P a s t a u I s e l n H e i n t z B o y e r
a n d M i o o n p t u s o f t h e u r e t h r a i s r e v i e d
E m H M D

GENITAL ORGANS

A l y e a E P V l i g a t i o n a P r e e n t i e o f E p d i d
y m t B e f o e a n d A f t e r P r o s t a t e c t o m y J
t f g s c

A c d g t d f f n t p o t p i d i d y m i t i s f o l
l o s u p a b u p e n c a l p r o t a t e t o m y i n f r o m
o t o 4 0 p r c t o f a s O f f o r t y f v e c a s i n
h h t h v a s a l g a t l a t t h e t i m e o f p r o t a t e c t
t m p t p t p l d y m t i o c c u r r e d i n l y
4 4 p n t W h n t e t n t n e t h e r i u s e d
l r l r p r a t i u r i n a r l r a n g e p r e o p a r a t i v e
p u l i d y m i t i f q n t O f f i f t y c a s e s t e a t d b y
p t t t m y n h h o l i g t i o n a s d o n e i t h r
f o f h t h f t e t h s t u m t a t i o n e p i d i d
v m t u l l y 4 p e c e n t

l t h a u t h r a e s a o l g t i o n s d o n e u d r
a e p t n l t n a n d w i t h o t t h u c f a n a n x
t h t f h t o l o a t d b t w e n t h e t h u m b a d
f r f n g r n l p k d u p b y t h a s s a t t i t h a

M l a p l l d i g t h t b t e e n t h e t h u m b
l f g r t h p t p s B n y n e e d l n d e r
t o s t a l f l k m g u t t h g h t s k n n d e r
t h d u t g n a s l o s p o s s i b l e t o t h
p a t f t c l l t h e n t e s t h e g u t t i g h t l y
T h u l t h t s t a d o f s l k o m g u t d e
a t h d g f u t t n g t h s k n T h e g u t i s
r m d f f i t d v f t h r o p a r a t o n

I n l o u r t u l e d f o m n t t o e k s a f t r
l g a t i o n I d i a k l l n t b e f d t h r o u g h t h e
c t o n h g t l W h t e n t t h l u m e n i r e c
e t l l h d a l t m l f t h l g t u r i n o t v e t
k (n z J T s M D

C o l l i g C W E l t t m E e n o f P s t i l e
B J t M l 9 8 4 3 8

D i n g t b l t f u r v a r s t h e a u t h o r h a s r e l e v d
b t r u c t i o n t h n c k f t h e b l a d d e r b y m a n s o f
t h e c u t t i n g h i g h f q u e n v c u r t i n f i l t y o n
e T h e p t i n m p l y d f o r t h e t y p e
f o b t r u c t n — t h f i b u o t r a c t u a n d b a r
t h e f b o u c u r f o l l o w i n g p r o t a t e t o m y a d t h e
c a r c i n o m a t s b r f o r m d b y a c a c i n o m a o f t h e
p r a t e s t h p o e c l u r e i n t a b l e f a l e n o m
t s y p e r t r o p h y T h m o d i f d p a n l o s c p u s e d
b y t h a u t h o r a n l t e t c h n i q u e l t h e o p e r a t i o n

are described. The results in selected cases are reviewed and important factors in the postoperative treatment are discussed. The article is summarized as follows:

The cutting high frequency current in the form of the electrotome will efficiently cut through fibrous scar and carcinomatous tissue at the bladder neck. Fifty one patients have been relieved from bladder neck obstruction by this direct vision method. Two patients died of pneumonia and one of carcinomatosis. The current cuts instead of cauterizing hence there is no thick lough or secondary hæmorrhage. Primary bleeding has never been more than enough to make the urine pink or sherry colored with at times small clots. The procedure described is a minor one giving relief in major lesions apparently without grave complications. JOHN G. CHEETHAM M.D.

Hunt V. C. Posterior Excision of the Seminal Vesicles. *Ann Surg* 1928 1: 1111-5

The perineal route has proved satisfactory for the removal of uninfamed seminal vesicles but in cases of disease of the vesicles with a perivascular reaction the perineal exposure is not adequate for the complete removal of the densely adherent structures. Hunt believes that the indications for seminal vesiculectomy should be restricted to cases of disease of the vesicles that are not amenable to medical treatment.

In the operation for posterior excision of the seminal vesicles the use of sacral anaesthesia and the prone position on the table with elevation of the pelvis are factors of importance for complete relaxation and adequate exposure. The incision is made in the median line and extended from about 2.5 cm. above the anus—or sufficiently far above the anus to avoid division of the anal sphincters—to just above the sacrococcygeal articulation. It is carried down to the levators ani and the latter are divided in the anococcygeal raphe. Lateral retraction of these muscles immediately exposes the rectum which is supported more or less loosely by areolar tissue. Excision of the tip of the coccyx facilitates mobilization of the rectum and the lower portion of the sigmoid by detaching them from the anterior surface of the coccyx and sacrum. It is emphasized that this procedure obviates the necessity for excision of the entire coccyx and for the higher transverse division of the sacrum which has been done in the more formidable methods of posterior excision of the vesicles.

The seminal vesicles are separated from the rectum in their lower third only by the retrovesical fascia. The reflection of the peritoneum covers the superior two thirds of the vesicles and is readily deflected upward after division of the rectovesical fascia. By mobilization and lateral retraction of the rectum and the lower portion of the sigmoid after division of the rectovesical fascia the vesicles are immediately exposed and their complete removal by visible dissection is rendered possible.

Extirpation of the vesicles may be accomplished with or without ligation of the vas deferens. However if there is a marked inflammatory reaction the vas may be divided. In the cases reviewed by the author there were no severe hæmorrhages and the moderate oozing which sometimes occurred was controlled by a light gauze pack left in place for several days.

Because of the accompanying perivesicular inflammation drainage was instituted in every instance. After removal of the vesicles the wound was closed by suturing the levators ani together in the median line. In every case healing occurred without disturbance of function of the levators or of the anal sphincters.

The author concludes that when the indications for seminal vesiculectomy are clear and based on definite pathological changes in the vesicles the method described is not formidable, obviates the danger of injury to the anal sphincters and facilitates visible extirpation of the vesicles.

Kilfoy E. J. Teratoma of the Testicle—Diagnosis and Treatment. *Clinical Medicine* 1928 11: 1

Teratoma of the testicle may occur at any age but is most common between the second and third decade of life. The average age of ten patients whose cases are reviewed was twenty nine and a half years. The tumor is potentially malignant to a high degree and the size of the primary tumor is no criterion of the duration of the lesion or the size of metastases. If carcinoma is present in a teratoma the prognosis is extremely poor. If the lesion is strictly a teratoma the prognosis is much more favorable.

Because of the difficulty in making a correct clinical diagnosis every questionable testicular tumor should be subjected to surgery and the tissue removed should be examined microscopically by a pathologist.

Teratomata are much more frequent than is indicated in the literature. The relative amount of blastodermic tissue varies greatly in different specimens.

The surgical treatment should consist in at least castration including removal of the vas and inguinal lymph nodes. Operation should be followed by X-ray or radium treatment or both.

When the patient is dismissed he should be instructed as to what to look for and to report for a check up examination every three months for the first year and every six months for the following five years. LOUI CRE M.D.

MISCELLANEOUS

Bandler C. G. and Killian J. A. The Practical Value of Chemical Analysis of the Blood in Urological Conditions. *J. Urol.* 1928 21: 1

The authors made a study of 1200 cases of urological conditions from the standpoint of the chemi-

l chang tl bl d and the cl c l c urse
 ll of the ch m l analysis of the blood in
 f n l mpa rment due to a pathologic l
 n l t th u a v t a c t a r c p o t e d n e t a l
 f f t h l m n t a t e d th i m p r o m n t
 f l t t n t h a t f l l o l f f u v b
 t l l t p r t a t h p t r p h y a n d t h f r
 h f l l t t h t p u t f i n P r
 j t m p m t n n l f n t o d m h
 t l g l k i n r a n g t h a l n t a k h a n
 t l b l f t t o g n r t t o n n l y h n
 t l i l t t m v e d
 I h h g n t n r i n t o n t h p o g n s
 l l l b l l t i n t h n t r a t n f a
 t g t p l u t n t h b l d b u t
 t h l t t r a t n f u a n t g n
 l t W h a t h r t t n f i t r g n m
 t l l l l t m h a a l b t n t l a
 t h n l t t h m t n t l n
 l l f m n t h o n c n t r a t n f r
 t a h t h a t h a t f r a n t r g n
 t f m h n l b t u n f t h u
 t t t h h g t h h m l c m p t f
 t l l l l g s h t r t h h t u n
 t l u t h b l l r u t r r k i l v s T h
 t h t t b r i a f t o l t r t u o f
 i t h a t h t n t l n l l t l u v
 l t t l h p p n f u t h b
 t t l l l l t l v l l u a
 l f l l n h t u f n e p h t l t
 n f t n t k t h a g p h p h o r u n l
 l m f t h l l m a l d n t o t h a r t
 l i l m l h p f t h b l o o d p l a
 T F F E M D

C k n e E A H D C L p p e E H M t
 l n d M n d O t l D i n n t l e T e t
 m e t o f P y n c l i d n P A s
 W d L l o s s

C KAY l l t h c u o f p y l
 a p h a z l l t v f l i f r n t i g p l
 f u f m t h t l t f t n c o m p l t g a
 t t t l l f r m a t f t h u v
 t a t l m j p t h e t m n t h u l l u l
 t b l m l k l t l g n t k f i l d d
 t l f t h r a l k l t u o r u n y t
 p t l f d e c p h h o f t h e m c t h
 m t i p d p n t B f a d a g f
 i m j l u a l m l f m t o n o f t h u
 t a t m u s t b l l u t b y n t g n o g r a p h y n l
 t c p

H K F L E P P E R l M A R T L A N D e p t d t h r
 b t n n t h t n o f t h l t n
 t l t t t t t t t s d t o c l f m h
 t a t h a l k l l t h a m
 T l v f n l t t t h a l m t a t i o n o f l k l
 f t f t h a t t d u e t o c o l i f r m b a c
 t e r i a r l t h m p t m b u t l n o t c u r e t h e
 n f e t o A l k l s d o t h a b t c h a l a c t
 t h m p t e o f t h a n g l d c d b y t h m
 t l h l g n i o n c o n t t o n d d T h
 l t l k l a b e a d q t l y c o n t r l l d b y t s

o f t h r a t i o n o f t h e u r i n e o n l y i f c e r t a i n p r e c a u
 t n a b e v e d

H u m m a t s a s a u r i n a r y a n t i s e p t i c b y b r e a k
 g d o n i n t o f m l d e h y d h h e x e r t s a l e t h a l
 e f f t u p o n c o l i f o r m b a c i l l T w o f a c t o r s o f i m p o r
 t a n i n t r a t m n t i t h t h i s d r u g a r e t h e c a p a c i t y
 o f t h e p e n e t t s e e t u n e a n d t h e r e l t i v e
 u p t h i l t o f t h i n f e c t i n g o r g a n i s m t o t h e a c t i o n
 f f l d h d

L E V E R I t a t e l t h a t n o v e r 50 p e r c e n t o f t h e
 c a s o f i m p l p y r i a i n c h i l d r e n t h c a u s e o f t h e
 o n d t n g t n t l l o r d r I n c a s e s o f
 f q u i t l y r u n g a t t a c k o f p y r i a a t h o o g h
 u l g a l a m i n t o n h o l d b m d e f o r s u c h
 d t i t b c u l s t n e s t r u c t u r e o f t h e
 u t a l d e v l p m n t l f t s

L E A D l u i p \ W H I T E C A M F R O N A D D I S O N
 a n l K I O D m p h l t h e n e s t y f o r a c c u r a t e
 d g f i r o n p u r i a a n d c i t e d n u m e r
 u i n h i h y t p y a n d \ r y e x a m i n a
 t n r t h m a o f d t m n g t h e c s e
 L A T L E r t t l t h a t h e x l s o c i n o l t h e m o s t
 f f t r a n t i s p t i c n o a v a i l a b l e

W I N N c t r a l l l t n n t t h f a c t t h a t c e r
 t n a f t t u n n t t n f o n i t h
 p a t i t c p o n t a n c e o u s l y t h e d a s e
 r m g u t e p p a r n t l y t h t h e t a b
 l h m i t f i m m u n i t T h m a g e m e n t o f r e c u
 t p r h n p y u h u l d i n c l u d e m e a s
 t i m p r t l g l n d t o n

W A T t a t i t h t h t r e a t m n t f c h r o n i c
 n f t n f t h u n a t r a c t a p h y c a b i o
 h m t h t l g t a n d a r g e o n s h u l d c o
 p t J L K A P A I C K M D

S t e r W L U u u J U n v C l e u C l f
 W / M S j

S t n s r p t s f o u r c a s e s o f u n u s u a l u r n a y c a l
 l I n t h e t t c a s e t h e t o n s v r s i t u t d i n
 t h r i g h t k d n y b u t t l w a n o p a i n o r s g n o f
 b u t n t h e r i g h t s l a d t h r i g h t k d n e y
 h d b t t f n t n t h a t h e l f t k i d n e y
 I t h e n d c a s e g a n t c a l c u l w r e p r e s e n t
 s i m u l t u l y i n b o t h t e

I t h t h l e s t h r a f a l e p r o s t a t i c a l
 l u g h g o v r 50 g m S t e b e l e v s t h t
 t h i c l e l f o m d p m l y i n t h e u p p r
 u r i n a r y t n d l l g d a n d g r w l a g r i n a p o u c h
 d v r t c l u m f t h p r o s t a t i c u r t h r a

I t h e f o t h c s c t h e r e n u m e r o u s u r e t h a l
 t n t h a d i t r b u t i o n

I n d i c i n g t h l a g n o s i s o f u n a y c a l c l
 S t e m p h a t i c t h m p o t a c e o f s t e c o s o p
 r o n t g o g a m s W t h g d t o t h e t e a t m n t h
 s t r s t h e m p r t a n c i p t p r t m e s u r e
 t o c l a r u p n f c t i o n a n d o c o m e o b s t r u t n d e
 t o s t r i c t u r k k s o o t h e r f a c t o r s H e b e l s t h a t
 s s m h i h t l e a e n o s u b j e c t c s y m p t o m
 a n d t u r a f d g c e g t i o p e r a t o n s
 n t i d u l i t h t o a n o t i n c e g i n s
 h t t h p a t t h o u l d b e a m e d f q n t l y

J u C M D

SURGERY OF THE BONES JOINTS MUSCLES TENDONS

CONDITIONS OF THE BONES JOINTS MUSCLES TENDONS ETC

S th l ind C G Tie Diffe entiat y f O t tis
D fo ma and O teopla ti Metastatic Car
ma R I I A 1 8

I t t i f m p th l g l m t i
r l t pt l lor
m t f l th t at mat n f th bon
t t th ti an l th l p it g f
t h l th h l t h d k f
I t l b l l p n th h l r u ti
h l l th d l or on l l tu l k
th o g t l l b d
f h l l l l b o i m o t
f t l t l l l h l f m r an l
t t l l m nt of th t b i
l A p l th k n g f t g d b n d
t h l r l t
l n t t t th t m l l l n
th m l l ng tas an l ham r
h g h h f l l e h a u t gr th t
n l l t i f t i s Th l l t
m l l f th l n a u m a g th fun t
t t l l B t i m b m t b d t
th l l l t i t u m l l h t
t u b n t Part ap t f t t
t b l t l b d a d t r p
t f the v l b t l l t m v f l l th
p l t f t l f m a th h d th r t
g m l l f f s e t t n f u t t
f m t n t i l u u t u d u g g s t
n d th i k n s In c m a t o u
t t th h d n n l g n l l m t h m
g l n t a t a d th n u g s
t f th k
In t t i t i f m th v b t t l j h
a i m t t t th p o i and
t n t

C s m n J Cong n t l R d U n Syn t i
M d f i - A o s 80

In some c ng nital d ulnar vno to
h ed t v ma pl v of Th ond t i o n m a y b
l t l l b l u l Ther t o t y p e s - o
th a d th th t i l o t f i the h a d
f th a l A a u l the d l m t v one f
t x c i p o n a u n th l i g f th l m M e
m n t t th r t u a l l y m o r e f r e t h n m l
Th d f m t t m p t b l e i t h h a r d m a n u l
l a b o
A f th l t i u r o th n f t n r e a l
th t th a v t g r m t t th t a t
m n t l p c u l l v a s o p e r a t d p

cl l h l th r c h a s b n a r e c u r e n c In th a u
th o r o p i n r g i a l t e m e n t i s n o t a p t t o b e
u c f u l

C o m a n r p r t s t h r e e r s f h a n n a l l o f
v h h t l i t i n o c c u r c l i n t h e l f t a m
p a t i n t g r l o f f o u r v a r a d t b o y s o f
t h t e n a n d e n v e a r s T l f a m i l y h i s t o r i e s i
t h e s a s i d e n o h e r i t a r y i n f l u e n c e I n t o
a s t h c l t u h a l b n n o t i c e l f o r s m e t m e
b t n a l t h g h i t h a l b e e n p r n t f r a l o n g
t m v i r t n t l n l y a v a r p r e i o u s l y T h e
d i a b i l i t y s l g h t A v i t i n g p o l i c y p u u e l
n a l l t a b a i t h e a u t h r o p i n o n
p t x p r i n t h p r a t v e p r o c e d u r s d i d n o t
j t i f r g l t f r n c e
F L D c A j o z M D

SURGERY OF THE BONES JOINTS MUSCLES TENDONS ETC

B to W R A t l o d s s B I J S g 9 9
4

B t o t t s t h a t t h m a i n i n d i c a t i o n s f
a t h r l i s a p n a n l l s o f f c t i o n v i t h o r
t h t i f m t v
I P t t l a a n d t b r e u l f t h s m a l l e r
t t n v a t i t r t m n t s e e m s t b e s u f f a c
t b t n t u b r l f t h e v i g h t b a g l i m b
t h l u l t o f o n c v a t i m e a s u r e s a r e f r a n k l y
p n l g a t f r a t i o n i n d c a t e l I n t h e
f h i l l t h d e f n i t l y b l i s h e d i n v o l v
m t p e r v t f t i n l l b l e s d a m a g i n g t o
g t h t h a t h l a s
I n f i x a t i o n f t h e a n k l e j t t i s e l l a f t e r r
m v n g t h c t l a g e t o d i g i n t o t h e c l e a o u s b o n e
f t h e t i b o f b l a r m o r t i c t o o b t n g o o d c o n t a c t
f t h e m a l l e a t r a g a l u s T h e a u t h r l o c t s
e l l o f t h a n k l h t h e j o i n t p f u l
f l l n g l r a t
I t h r o l f t h k a c c u r a t e b n c o n t r a c t
m v b e a v i t l b y i n t l u c n g b n e p g a n d
m b e d i n g t h p t l l a
F a t h r o d s i f t h e h i p t h m e t h o d o f H b b
e m t b a g o o d p o c e d
R o z r v F v M D

Gray II T The St bilization of the Flail Leg
B I J S o 9 39

C u r g e o n o f t h a c c e p t e l v e w s r e g a r d
i n g t h r d e i o f t h k n j n s o f e x t e n s i v e
i n f a t i l e p a r a l y s i f t h e c l i m b T h e c a s e
e l e c t l b y h m f o r t h s o p e r a t i o n f a l l t o t o
g u p () t h s e i n h c h t h e r e h a s b e e n o r e t r n
l m a d p o n l () t h e n h c h r e c r
h a b n o l g h t t h a t t h l m b c a n o t s u p p o t t h
i g h t f t b b o d y

In the operation described use is made of a spicule of bone about 3 in long which is obtained from the crest of the tibia. The condyles are denuded and the surfaces approximated. The spicule is introduced into a hole drilled in the epiphyses of the tibia and the femur.

Gray has used this method for eight years and has had no failures from it. He has found, however, that the bone graft alone is not sufficient to cause ankylosis; denudation of the joint surface is quite essential. The risk of the operation is negligible. The disadvantages of a stiff limb appear to be small in comparison with the tedious expenditure of time required to put on and take off an appliance. The operation can be done without damaging the epiphyses. ROBERT A. LUNN, M.D.

FRACTURES AND DISLOCATIONS

Hey Groves, E. W. Damages to Bones and Reparatious. *Lancet* 1914, cxi, 6.

The author reviews 700 consecutive cases of fracture in which primary treatment was carried out with unsatisfactory results. He classifies them into groups according to the bone involved and discusses the factors responsible for the poor results.

In the cases of fracture of the humerus consultation was most often sought because of non-union or the complications of an ineffective plating operation. When the fracture was in the upper portion of the shaft near the tuberosities joint dysfunction was the most frequent difficulty.

Among the cases of fracture of the elbow there were two in which a fracture of the olecranon had been overlooked and stretching of the fibrous union had occurred. The other cases in this group were cases of fracture of the lower end of the humerus in children and young adults which had resulted in more or less stiffness of the elbow and in three instances had led in addition to chronic contracture.

In most of the cases of fracture of the radius and ulna the complication was displacement of the shaft of the radius toward the ulna so that the hand deviated toward the thumb and supination was lost. Of this group five were cases of fracture in which some form of operation had been performed unsuccessfully.

In all but one case of Colles' fracture deformity with loss of function had resulted from incomplete reduction of the displacement.

In the fractures of the neck of the femur difficulty resulted from non-union, painful fibrous union, or mechanical coxa vara. In the cases of fracture of the shaft of the femur consultation was sought because of sepsis, malunion, or complications of plating operations.

In the cases of fracture of the tibia and fibula the difficulties were due to malunion, delayed union, non-union, or compound fracture.

In the cases of fracture of the ankle the poor result was due to incomplete reduction which caused

valgus deformity of the foot and a painful and stiff ankle.

Distal leg fractures are grouped according to the bones involved. With few exceptions the alleged negligence consisted in failure to employ the X-ray in the diagnosis and treatment.

The author emphasizes the importance of making a critical examination of the fracture within a week or ten days after it is put up in order to obtain absolute proof regarding the contact and alignment of the bone. He suggests that in rural districts a mobile X-ray plant be provided.

Emphasis is placed upon the unfavorable complications resulting from plating operations in which the plate or screws fail to hold and especially upon the danger of plating in cases of compound fracture. In very few cases failure resulted from the plating of open fracture, though in many instances failure.

The chief factor in an ideal treatment is simplicity. The bones are displaced by the original violence by gravity and by the pull of the muscles. The first essential in reduction is efficient traction in the axis of the limb. Therefore every practitioner should master some method of applying such traction. (F. R. C. HILL, M.D.)

Werenskiold, B. A Contribution to the Roentgen Diagnosis of Epiphyseal Separations. *Ida* 1914, 9, 49.

True separations of the epiphysis is without displacement and can be diagnosed from the detachment of a thin lamella from the diaphysis. This lamella lies in the interstice between the epiphysis and the diaphysis and is found in 53 per cent of mixed epiphyseal separations.

True separations of the epiphysis are by no means rare; they constitute 10 per cent of cases of epiphysiolysis radii. They are most common between the ages of ten and twenty years.

Robert, E. L. The Treatment of Ankle and Leg Fractures by the Delbet Ambulatory Plaster Splint. *B. J. S. S.* 1914, 9, 44.

The ambulatory treatment originally described by Delbet has been adopted by the author for the treatment of fractures of the ankle and certain fractures of the leg. The technique, including the making of the plaster bandages is described in detail and eleven cases treated in this manner with very satisfactory results are reported.

Weight bearing may be allowed within three or four weeks. The plaster is changed whenever it becomes too loose. Motion at the knee and ankle is free throughout the treatment. The use of the Delbet plaster shortens the period of treatment and renders unnecessary the tedious and expensive course of physiotherapy required by other methods.

In leg fractures the transmission of the full weight through the site of the fracture, which is made possible by the use of the Delbet plaster stimulates the rapid formation of strong callus.

ROBERT A. FLAXSON, M.D.

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

BLOOD VESSELS

Pemb t n J deJ A t o n s Aneu m i /
5 5 5 4 9

Follow a l n of the mptoms d g
o p g ail tr atm t of art riov nous
a m l ml rto pr nt th alient feat res
of xt n is of cqu elart so enou anu m
t bul rf i i cp rt t e e ind t l

Th pt m are both l al and sv tem The
th ill path gn m c an l its poi t of grea t
t t tv mark th te of the l s n The i creas
the f th lumb wh n the lesion is per pheral
tl i t t an l ngo g n nt of th es els the
nr th temp tu en ar th i tula and the
l e n th tempe ature distally the t ophic
l tu ban nd th abnorm l ensati ns n the
aff t l pa t i rib d

I th ca e r vie d t me sign usually
t i Th r a ons fo th ir p ene a d the
vriat n th r s ve ty ar d cussed The sys
tm sgn con t n chang in the pul ate and
blood p ur n crease in the blo d lume a d
th ze of the heart and ev lence of pathological
h ng n th heart

Th r cog t of the l s on sh uld pre ent no
dific lte The ymptoms and physical s gns
t geth w th the c ase in the vgen co tent of
th blood n the v i nity f the le n p t
th liag i b y nd question

Th p gno s depend upon the e of the fistu
lus p n ng l r e ca s a f i tula clo s sponta
o ly but th i occurs only i the ea ly months
In oth as s ther s a t nd cv towa d enla ge
m nt f the op ni g th incr ng mb rassm nt
of th c ulation a d death from heart d ase

Th object of tr atment is to oblit rat the arte
r l l ak w th t int f ing w th the d tal ci cu
lat on The method f accompl hing this va es
ith the type and sit of th lesion and th effi cy
of the collat ral circ lat on Th general proc du e
in the tr atment of co g n t arterio venou anu
r m and the step i the treatm nt of acquired
a tr no a u ma d cribed

In the two a po t d in i tail the an u sm
nv ol l th f m r l art r and v in In the first
e it a t at d n th l ft grou The fistulous
t ct exc s l t ther th segments of the
a t and n Th benefici l effects of the op
tio n th l l a d syst m manifestat ns a e
l sc b d C mplet cula tudies made befo e
l aft r th p tio rec ded

In the oth th tract was not d finitely
i l tel a d ligat on ar u d it f led to oblit ate
the c mmu c ti n S b e quently the tract s
excised ith r tion of the artery and vein Con

lescence was disturbed by the appearance of a
cystic tumor in the pelvis After expectant treat
ment this t mor was r moved It as found to
ontain ld blood clot The author attrib tes the
form ton of the cyst to njury of the femoral
a tery at an arther operat on

Fedell F A te lovenou Aneu ism (S) l l n ma
t) f k i l d l 9 7 x 93

Fed li eports a ca e of aneurism of the femoral
rte v n a man twenty s x years of ag which was
d to a sh apnel o nd Th anatomical co di
tion e e such that remo al of the sac was im
po sible w th o t endangeri g the itality of the
ss l Quadruple ligat on was therefore per
formed The operat n was done under tropo
co a ne sp nal anes the a v s cul ar z t i o n and nutri
t n of the limb v ere p rectly re establi hed and
there ha be n no recur ence of the a curism such
a h s l veloped in s me of the reported cases in
which th sac was not removed

Cur m d of the pul e over both femoral
arteri d th p x of the heart show that the
pansio s of the aneurismal sac were greater than
those of the n mal arte y and that in th artery
ith aneur m there as a slight r tardation in the
b gin ng of the arte al diastole from the tm of
ope g of the a r t c semilunar valve D astole
as mor ah upt and the tran it n from arterial
dia tole to systole took place more rap dly in the
art ry v th aneur m tha in the normal art ry
but the drotic a e as more m rked in the
no mal a tery These d f e nces were due to the
d case n the elasticity of the wall of the a tery
ith an u sm The m re rap d emptying of the
art ry v th aneur sm v a due to the passage of a
pa t of the blood nto th ve n

AU REY G M RGAN M D

M cquot P A te nous Aneu sms (S) l l
a e m t e o e e) B H t e S
i d k 9 7 l 15

Th autho agr es with Moure that n cases of
ascula nju es it is often bett r to delay operatio
until after the occurrence of c catr ati n and th
fo mat ion of an aneur m prov ded th re is no gross
haemorrhage a d no f reign b dy n ar the ve el
Il note how v r that Mo r does not mention
through an l through perforation of the artery
Mocquot h s s en two cases in which th artery
show d a double pe fo ton nd f a conerva
t ve operat ion it wo ld h ve b n n cessa y
re ect the v ounded part of the artery and re e t
lish is cont n tv by circula suture He l g t d and
e ti p ted only the ounded segment and both of
the p t d nces recovered

Mocquot believes that Moure attributes too much importance to the sac in arteriovenous aneurisms since it is only because of clinical analogy that an arteriovenous aneurism is called an aneurism. From the standpoint of anatomy and pathological physiology an arteriovenous aneurism is very different from an arterial aneurism. In the latter the sac is essential but in an arteriovenous aneurism the communication between the artery and vein with the short circuit of the circulation is the important factor. The sac cannot be used to repair the artery.

The article contains the reports of two cases of gunshot wound in which because of difficulty in localizing the lesion it was necessary to operate several times for recurrent aneurism. In the first case there were two arteriovenous communications—one in the femoral and one in the circumflex vessels. Mocquot describes also an operation in a case of arteriovenous aneurism due to a stab wound. He concludes that extirpation if not the ideal method for arteriovenous aneurism is at least the procedure which is most frequently indicated and which gives the most constant results.

AUDREY G. MORGAN, M.D.

Lecene Arteriovenous Aneurisms (Sur les anévismes artérioveineux) *Bull. et Mém. Soc. Chir.* 1927, lxxv, 1198.

The author discusses the treatment of arteriovenous aneurism particularly those which occur close to the trunk on the extremities. When an aneurism is situated distally hæmostasis is easily effected by the method of Matas, i.e. by placing an Esmarch bandage around the limb distal to the lesion and a tourniquet proximal to it. When the aneurism is higher up this method cannot be applied and some method of temporary ligation as with a red rubber tube (Nulaton) is recommended. The Matas method is non-traumatizing and efficacious.

Lecene reports two cases which were treated during the war. The lesions were almost identical both affecting the femoral artery in Scarpa's triangle. First the external iliac artery was exposed and hæmostasis secured by means of a small rubber sound. The aneurism was then exposed and the vein opened up so that the communication could be explored with the view of lateral suture of the artery. The hæmorrhage was so great however that this course was abandoned and a quadruple ligation of the vein and artery close to the fistulous opening was performed instead. Numerous enlarged veins draining into the femoral artery also required ligation. The second case was analogous to the first except that it had been operated upon previously and the ligation had been performed too far away from the site of the aneurism to effect a cure.

From his experience the author concludes that in young persons there is no danger of circulatory disturbance in the extremities following quadruple ligation. Attempts to save the main artery are time-consuming and carry with them grave danger of secondary hæmorrhage. If a direct and accessible communication is found lateral suture of the arterial

wall may be justified. Ligation should be made as close to the aneurismal communication as possible. It is not always necessary to expose the vessels to the periphery in some cases the lesion may be closed by whipping it over with sutures.

MICHAEL L. MASON, M.D.

Warter W. M. Acquired Arteriovenous Fistula *Brit. J. Surg.* 1925, lxxviii, 19.

Warter reports four cases of acquired arteriovenous fistula. In three cases a determination of the oxygen content of blood taken from a vein in the region of the fistula revealed the presence of arterial blood in the venous channel as would be expected. This result suggests a pathological criterion in all cases in which there is doubt as to the presence of an arteriovenous anastomosis.

Leriche R. Traumatic Arteriovenous Aneurisms of the Limbs (Sur les anévismes artérioveineux traumatiques d'un membre) *Bull. et Mém. Soc. Chir.* 1927, lxxv, 1199.

Leriche noted the exact situation of the lesion in only five of his nine cases of traumatic arteriovenous aneurism. He found that the arteriovenous fistula occurred in a case at the time of the injury. In some instances there were dilatations of the vein. In the one case of arterial dilatation the elastic tæber had disappeared in the greater part of the arterial pocket and the muscular fibers were paralytically.

When the sac is formed secondarily at the expense of an encysted hæmatoma it does not take long for the formation of an arteriovenous aneurism. Leriche has seen complete endothelialization after fourteen days. He is of the opinion that the connective tissue proliferation which welds the artery and vein together is due to transformations such as occur in all traumatized connective tissue. If operation is not done within the first few days it should be deferred for two or three months.

In his nine cases Leriche obtained excellent results from resection of the fistula with quadruple ligation. He discusses the immediate secondary and remote phenomena following experimental arteriovenous fistula and reports a case of arteriovenous aneurism of the femoral vessels with considerable cardiac reflux, cardiac resonance, dilatation of the heart and a murmur. The aneurism was cured and there was very slow diminution in volume of the heart but the murmur still persisted after six months.

ANNAL FAGE.

Auvray The Treatment of Arteriovenous Aneurisms (A propos du traitement de l'anévisme artérioveineux) *Bull. et Mém. Soc. Nat. de Chir.* 1927, lxxv, 1156.

The author has treated nine cases of arteriovenous aneurism. In one the procedure consisted in supplantation of the communication and lateral suture of the artery. The result was very satisfactory. In the eight other cases of war wounds—the complexity

Moszkowicz combines it with vasoligation. The injection and ligation are carried out at the highest point of the dilated vein usually on the upper third of the thigh. However ligation is high as the level of the opening of the vein saphenous into the femoral it is avoided whenever possible in order to keep the patient ambulant.

After a careful study of the venous condition has been made with the patient standing a spot is chosen for the injection and marked by scratching with a fine needle. Disinfection is carried out with benzine and tincture of iodine and a local anesthetic is injected about the area. Following exposure of the vein a double ligature is placed around the vessel but only the upper strand is tied. Then 30 or 40 cc of the glucose solution is injected into the wound is closed with Michel skin clamp and a small dressing is applied. After the injection the entire limb is encased in a rubber bandage.

If the vena saphena magna forks below the site of the ligature on the thigh 20 cc is injected into each branch. Moszkowicz adds 1/2 drop (not more) of suprarenin to the solution.

At the moment of injection many patients experience cramps of the calf muscles but these tend to subside after a few minutes. Some patients feel a drawing in the leg for a few days and prefer to remain in bed while others walk about undisturbed.

Among 150 cases receiving this treatment there were 3 cases of reaction central to the point of ligation but without any tendency of the process to progress farther. The reaction caused by the injection regresses as a rule in two or three weeks. After four weeks the patient is able to resume his usual work. No instance of embolism has been noted. In one case a periphlebitic abscess developed beneath the point of ligation.

Moszkowicz performs this operation only for markedly developed varices in persons doing hard physical labor.

The presence of an ulcer is not a contra-indication but an attempt should be made to have the ulcerated area in a clean fresh state before the operation is performed. The ulcer tends to heal rapidly following the injection. Recent active thrombosis or phlebitis is a contra-indication diabetes demands caution.

Moszkowicz is unable to report the ultimate results in his cases as all of them were treated recently. The method is unsuitable if the dilated veins form a network encompassing the leg. For such cases Moszkowicz recommends the Rindfleisch-Friemel spiral incision with ligation or evulsion of the involved veins. The wound is closed with Michel skin clamps in order to promote the development of cicatricial tissue. STRIMMER (?)

Cantelmo O. Fulminant Postoperative Embolism (Le embolie post-operative fulminante). *Refonard* 1927 XLII 1120

The author briefly reports five cases of fulminant postoperative embolism. The first was that of a

woman fifty-five years of age who had her right breast amputated under chloroform anesthesia and on the morning of the sixth day was found dead in bed. The second was that of a woman of forty-six years who was operated upon for a cyst of the ovary and fell dead on the fifteenth day when she started to get up for the first time. The third case was that of a man fifty-nine years of age who was operated upon for a tumor of the intestine due to a tumor. On the tenth day the patient fell dead while sitting up in bed eating a meal. In the fourth case that of a woman of twenty years who was operated upon for a uterine fibroid from probable cancer of the cervix. The patient died of uremia on the fourth day during an attack of vomiting.

In four of these five cases there was no inflammation. It is evident that embolism may be aseptically well aseptically. The primary factor bringing it about is the first rise of blood pressure from effort after the postoperative rest. There are three forms—the venous, the arterial and the mixed. The venous form is characterized by acute suffocation and the form characterized by a phlegm. In the venous form a large embolism in the right heart causes reflex paralysis in the two lower limbs. The embolism occludes a large branch of the pulmonary artery. The embolism is always preceded by an evening rise in the temperature—the sign of Michaelis or a pulse rate up to 110-120 with a normal or slightly subnormal temperature—the sign of Mahler. In the author's opinion the sign of Michaelis indicates bacterial embolism and Mahler sign aseptically embolism.

In the cases of patients with a weak heart or anemia and the cases of all persons over forty years of age operation should be preceded by the administration of a heart tonic and alkalization of the blood and should be done under local anesthesia. The patient should be kept at absolute rest for as short a time as possible and slight massage of the lower limbs and respiratory gymnastics should be begun on the first day after the operation. The lower end of the bed should be lifted about 15 cm. At the first sign of fever or tachycardia the patient should be put at rest again and should be kept at rest until about a week after the cessation of the fever or tachycardia. ARTHUR G. MARRAS

Key E. Embolism as a Method of Treating Embolic Functional Disturbances of the Extremities (Ueber Embolektomie als Behandlungsmethode bei embolischen Funktionsstörungen der Extremitäten). *Zentralblatt für Chirurgie* 1927 I 219

Key believes that the Trendelenburg extraction of pulmonary emboli is not of great practical importance as there are few cases in which it can save life. In the extremities however embolism has a better prognosis. Key has collected a total of ninety-five cases from the Swedish literature and states that the number is increasing every year.

Emboli usually occur at points of branching of an artery such as the bifurcation of the aorta and

The author believes that carbon dioxide inhalations are of great value in quickly stimulating respiration especially in cases of severe respiratory failure
JENN (7)

Pearse H E. The Immediate Effect of Arterial Ligation on Experimental Study. *J W Sc* 19 8 clxxv 49

In a study of the results of ligation of large arteries upon the arterial and venous pressure and the size of the heart Pearse found that the arterial pressure was increased proximally and decreased distal to the ligature and that sudden occlusion of the aorta produced cardiac dilatation and pulmonary oedema. He suggests that in arterial disease of the extremities the elevated proximal pressure may be a factor in the dilation of the collateral channels and the maintenance of viability of the peripheral part.

RICHARD I. HERN, M.D.

Stern W G. The Saline Wheel Test as a Measure of the Blood Supply in Arterial Disturbances of the Extremities. *Ohio State M J* 9 8 x 1 1926

Up to the present time but few good and practical agents to measure the circulation in the extremities have been devised. The calorimeter is the most accurate of these but is susceptible to external influence and is not suitable for hospital or office use. The hypodermic pyrometer of Brooks is useful but often inaccurate and requires puncture of the skin. The oscillometer of Fachsen seems to be reliable but is often out of order.

Following the work of McClure and Altmann the author has devised the following method:

By means of a tuberculin syringe and a very fine needle 0.2 ccm. of an 0.8 per cent saline solution is injected intracutaneously. The eye of the needle should be visible through the outer layer of the skin when the injection is made. The first injection is made at the base of the great toe and similar injections are made at 4 in. intervals up to the leg and thigh. The sense of touch is used to determine the disappearance time as the vasomotor changes produced by the injection often render visual judgment unsatisfactory. Normally sixty minutes or more is required for the complete disappearance of the wheal produced by the injected fluid though at the base of the great toe readings as low as thirty minutes have been considered normal (once such reading was made in the case of a patient without clinical evidence of vascular disease). In cases of circulatory disturbance the disappearance time of the wheal is reduced to one third, one fourth or even one twentieth of the normal.

From a series of 100 cases in which the described procedure was used the following conclusion are drawn:

1. In the absence of oedema the intracutaneous salt solution test is a simple rapid and accurate method of determining circulatory deficiencies in the extremities.

Sixty minutes or more is the normal disappearance time of the salt solution.

3. In all instances in which clinical circulatory deficiency exists the disappearance time is diminished in the area just above the site of gangrene (existing or threatened). It is frequently as short as five minutes.

J HEN J MALONEY, M.D.

BLOOD TRANSFUSION

Bourde Y, Zucarelli J and Duxal P. Chronic Recurrent Hemorrhagic Purpura Splenectomy. Recovery. (*Urrura l m rrrhagique re* I m hr 1 que plenectomy gucrson) *Bull et* 5 at d 1 1 1 1066

The patient whose case is reported was a woman twenty-two years of age. Two of her sisters had died from hemorrhage at the ages of nineteen and twenty-two years. The patient's first hemorrhage occurred following a slight traumatism sustained when she was four years old. Since then she had had numerous spontaneous and traumatic hemorrhages into the skin and from the mucous surfaces. Tonsillectomy and appendectomy had been performed without undue bleeding but following the extraction of a tooth the gum had bled for three weeks. Her hematoma is brought the patient to the hospital in coma.

Examination of the blood revealed a moderate degree of secondary anemia, a normal platelet count and slight prolongation of the bleeding and clotting times. The Wassermann test was positive. Specific therapy and various intravenous and hypodermic injections produced exacerbations of the bleeding. Pain developed in the left hypochondrium and the spleen which formerly could not be felt became palpable. Splenectomy was followed by apparently complete recovery. The histological findings were thought to indicate Weill's disease.

H. M. ZIMMERMAN, M.D.

LYMPH VESSELS AND GLANDS

Dunham E C and Smythe A M. Tuberculosis of the Cervical Lymph Nodes in Infancy. The Value of the Roentgen Ray in Its Diagnosis. *J D Child* 19 7 clxxi 97

When cervical adenopathy was observed in children it was found that roentgen ray examination was most helpful in determining whether the infection of the nodes was tuberculous.

X-ray plates showed calcified nodes in two cases of infants aged five and seven months, a period of life in which tuberculosis of these nodes is regarded as rare.

ROBERT M. GRIER, M.D.

SURGICAL TECHNIQUE

OPERATIVE SURGERY AND TECHNIQUE POSTOPERATIVE TREATMENT

Fa n G M ard T ra a L Facto s Dete
m n u g the Resi ta ce of the Pat ent and
Decre sing the Risk of Oj rat on (E m t
p l l i t t a d l p a d l m
l p t) R f r d o 7 l 37

Th f n l a m t a l factor d t r m n n g th re
t u n of th pati n t t l f o u n d n h s b u l o g
c l a n f c t i a l a l t o To a c r t a n l e g c
h a b i t u s a n i n l e f f u n t i o n l s o n s f t h e
m e g a l p l n l t v j i t a f r q u n t h s f i e r e
r i o u s p o p o r a t i v m p l c a t i o n A o t h r f a
t r i n c i n g t h k f o p o r a t i o n i s o b s e r v e d I n
t h e c o o f a n o b e p a t i e n t a n e f f e r t s h o u l d b e
m a l i f p b l t o d e r s e t h e w e i g h t a n l m p
p o v t h e m e t a b o l i s m a n d c i r c u l a t i o n a n d r e s p i
t i o n b e f o r o p a t i n a n i n t a k a n O f t h c h a g s
i m t b l i m t h m s t s e i o a r t h o s e l i n g
t l a b t s

I t i m p t a n t t o r t a b l b t h e a c t i v e e q u i b
r i u m of the b l d b f o o p o r a t i o n l a c t e a n l
h r o n i f i f t h e k i n v d i a b t p r l o n g e f
n a t i r t n l i c d i a s f l o r i l r i k t s l u
k e m i c r t n a e m i a l r o u n f t o n t h
t i a n l s h c k t h k a l r e o f t i
d c a i

A t h r f a t f i p r t n l t r m n g t h
r i k f p e r i o n i s t h c o n d i t i o n of the c i r c u l a
t i o n m C o m p n a t e l v a l l e s o s a e i t t i n g
u b u t t a n t r r h t h m i a a n l a c l a f b r i l l a
t i g r t i v a e t h e o p a t v s k I n d t r
m n n g t h f e c t n l a p a c t i v i t y of t h b t i t m
p r t n t o t o w t h p r o p o r t i o n f t h o l u m of t h
b t t o t h a t of the b o d y a s a h o l t h p o r t i o n
f t h l u m f t h g h t h a t t o t h a t f t h l f t
a n l t h p r o p o r t i o n of the l u m f t h a o r t t
t h a t of the h a r t I n a s s f o m p n s t e l h y p r
t s o n o p o r a t i o n n o t c o n t i n u e d f t h
k d n c f u n t i o n g o o l T h c h o l i n a e t h t i c
f p n d u p n t h l a t i I n m p t d h y p o t n
v a t h c h e f o f a n x t h t d e p n l o t o l u p o
t h l g f t h f t h l f p s u r b u t a l a n o n t h
o n t i o n p o n i b l f o r i t G r t a u t n h u l d b
v e r c i l n o p a t n g i a s f d o m p e n s t l
h y p t i o n o h y p o t n o n s a d e r a i t h e
d i f f i c u l t p e s s u r i t a t s m p a i r m t of h r t
f u n t i o n

A s g n e a l r u l p r a t i o n i s o n t a n l i e r d i f
t h e h a e m g l o b i n i s f o r t h a n 30 p e r c e n t a n d t h e
r y t h c r o s s e t l e t h a n 1000 / m i l l i o n W h e n
t h e h a e m g l o b i n i s l e s s t h a n 50 p e r c e n t p r p a
t i v e t r a n s f u s i o n of b l o d i s i n d i c a t e d

T h e k i d n e y f u n c t i o n s h o u l d b e t e s t e d b e f o r o p e r a
t i o n b y t h e n e n t r t i o n a d d i l u t i o n t e t d e t e r

m i n a t i o n of the b l o o l u r a a d A m b a r d s c o n s t a
a l t h p h o l p h t h a l e i n t e s t

L i v r f u n t i o n t e s t a e l s s c o m m o n l y a p p l i
t h o u g h e q u a l l y i m p t a n t L i v r f u n c t i o n m a y
l e t e m i n e l f o m t h b i l r u b n e m i o a c t e u s n d
L a b b e a l m t a v g l y c a m i a t s t t h e a m m r
c f l i n t (H a s s l b c h) K o s e n t h a l s t e t
t e t a b r o m p h n l p h t h a l e i n a n d c h r o m o c h o l o s c o p
I n t h i m p r o v e m e n t of l i v e r f u n t i o n g l y c o g e n
i s of t h g r a t t i m p o t a n c e T h b s t e n e r g
m e a e t t h l i r t a d n i s t a t i o n of s u g a r i n t
f o r m f g l u l u t i o n

A t r e (M R M D
S t r o n H B I n d e q a t e S k n P r p a t i o n s
C u s of P o p o r a t e W o u n d I n f e t i o n
A l E S t J M q 8 9

I n S u t t a p n n i d q u a t e p r e p a r a t i o n
t h e k n o t h m o s t p r b a b l c a e o f p o s t o p e r a t i o n
o u d i f c t i n a t h o t h r s t p n o p e r a t i o n
r o o m t h n i q u m a y b e c o n t r o l l e d W h e n t
s k n i p r p a r d t h g a t e s f o r b n e a
j o i n t k i n f e c t i o n e l l m d v l o p

T h f a c t t h a t t h e s k i n o n t a n n a t i h a s b
p r l b y b a t r l o g l t l y of x i s d i s p e c i m e
A o u s i n t i g e r h a c f o d t h a t w h n t
s k n a p p a r d t h l n f r o m 5 t o 1 p
c e n t f e v e r d p e c m n f t h k n o v i l e d
g r o t h of b a t r i a n I t r a c o n d i n g t o C o l
t h u n d n e o f p o p o r a t i o n a n d i n f e c t i o n
l w n p r e p a r a t i o n f t h k n o t h o d i t a p
p e r a t i o n k e a n l S u t t a n l t h a t i e
v h t h k i h a d b e e n p r p a r e d w i t h H a n
t n o l d t a p o s t i o n u l t a o b t i e d
p r e t n i n f i n t i o n f t h e o p a r a t i o n o u r
o c c u r d n p e r n t h r a s i a s i n w h t h
k n h a d b e e n p r p r l t h a d a v i n t h e
i n f t i r p t i c u l t u r

M M x M D
C r n c i n A A n u d M a n d F l o n f
A z o t a e m i a n s S g r y R h h l t m
h h J d l q 7 394

O p r a t n h o l l n t b p r i m l t n t h
l l i s a b o n o m a l 0.45 g m p o o c
m i s t n o g n t n t i i r i p o f c i o
of t h l i e n l k i d n e h h a l l p r o b b l y m a
t h d e d e l o p m e n t of h p a t e l o m p l a t i n s a f t e
p a t i o n

T h e a u t h r d t r m n e l t h b l o d u r a 3
p a t i e n t s w h o r e t n l e r g o s u g a l o p e a t i
T h l e t r m u t n s e m a l b y t h M o o
m t h d I n 34 c s s t h m u n t a e q u i l t o
a b o 0.45 g m p e 1000 c m A m o g l t 13
c a s t h r e r e 4 l a t h s f r o n a r i o m p l c a t o n
b u t n o e d u e t o r a l s u f f i c i e n c y I n o m e c a s

the blood urea ranged from 0.70 to 0.80 gm per 100 cc.

There are cases (the authors report) in which when the blood urea is normal before operation the phenomena of severe renal insufficiency appear after operation. Therefore the prognostic value of the preoperative blood urea values seems to have been exaggerated. Determinations of the blood urea should be supplemented by Ambard's constant and the phenolsulphonphthalein test. The authors prefer the latter.

An increase in the blood urea is a constant phenomenon after operations. It reaches its maximum on the third or fourth day and descends by first on eight or ten days usually without clinical symptoms. The urea retention before and after operation in 66 cases is shown by the authors by means of graph. Some surgeons attribute postoperative hyperazotæmia to the anæsthetic but the authors do not accept this theory since in 8 cases in which anaesthesia was not followed by operation there was no nitrogen retention and in some of the cases in which operation was performed later the blood urea was increased after the operation. All methods of inducing anaesthesia cause a transitory increase in the blood urea after operation even local anaesthesia. Traumatized patients who have not been anesthetized also show nitrogen retention.

Urea secretory azotemia is the expression of a disturbance of the excretion of urea in the kidney due to an alteration in the renal parenchyma. The urea secretory function remaining the same before and after operation it cannot be responsible for postoperative nitrogen retention.

The oliguria occurring after every operation has been considered a cause of increased blood urea. The observations reported in this article seem to show that the blood urea curve rises the volume of urine decreases and the concentration of urinary urea increases. Oliguria does not seem to be the cause.

The factor essential for nitrogen retention is resorption of the elements of the cells and tissues killed by the trauma of operation. This accounts for the nitrogen retention following trauma and chemotherapy. An operative procedure such as the transfusion of citrated blood which is not accompanied by disintegration of the tissues or by resorption is not followed by an increase in the blood urea. Postoperative leucocytosis may contribute to the causation of nitrogen retention.

1221 1 1 VCE

- Walter A B Denuded Surfaces Treated by Tannic
Acid *Canad an M 1ss J 192* VII 1517

Walter recommends the use of an aqueous solution of tannic acid not only for burns but also for surfaces denuded by other traumata. He reports to us a case in which it gave good results. The method is of value from the standpoint of simplicity, comfort, freedom from painful dressings, quick healing and firmness of the scar.

MERRILL HOOD, M.D.

VERLE P. HOGAN, M.D.

Figure J 1 The Mikulicz Drain (La Mikulicz)
1 r 1 1 r 1 1 2 xve 4(7)

In a long time I have been advocating the use of Mikul's serum in peritoneal infections. He uses it principally as it applies to intestinal ulcers, but I have opposed for a time, but a large number of his patients have now become convinced of its benefit.

It is known by its popular name Mikulicz
kron but it was first described by
Dr. Mikulicz.

In numerous, a Biller report of forty cases of primary testis treated by appendectomy with primary orchidectomy, the abdomen without a single lymphatic that the condition must have been in the primary stage, with little or no infection of the primary tumor. He agrees with those surgeons who believe that simple peritonization is sufficient to remove infection. He has found that a dry Mikulicz drainage tube after capillary drainage, that that is correct with saline.

M. R. L. C. M. R. L. M. D.

Jackman A.S. Chronic Postoperative Tetany

Jack reviewed the growth of our knowledge of the true function of the parathyroid gland from W. H. R. Burk's observations in Billroth's clinic in 1884 to the work of H. W. L. and J. Marriott in 1918 which demonstrated that convulsions develop when the calcium in the blood becomes less than 7 mgm per 100 ccm of serum.

The incidence of postoperative tetany has been increased by the radical type of thyroidectomy that is necessary to obtain a cure and prevent the recurrence of cancer. The cause of the tetany is operative trauma to the parathyroid gland or interference with the blood supply of these gland by ligation of the artery or venous tie.

The symptom may be acute or may not develop until several months after the operation. In some cases they may be atypical. The classical signs of the condition are a decrease in the calcium content of the blood and the signs described by Trousseau, Chvostek, and Erb. Tetany has no effect on the basal metabolism.

the two agents that have proved most effective in the treatment are calcium and parathormone. Neither however will cure the chronic type of the condition. Jackson gives calcium lactate orally or intravenously or Collip's parathormone intravenously. The transplantation of parathyroid glands has not proved generally effective because of the difficulty of recognizing the gland at operation. One of Jackson's cases was markedly benefited by ultra violet light but the time that has elapsed since the treatment has not been sufficient to determine the ultimate result. Parathormone was used with a beneficial but not curative effect in three cases. The treatment should include a diet high in calcium, measures to prevent constipation and exposure to sunlight.

JOHN J. MURPHY, M.D.

JOHN J. MACNA, M.D.

ANTISEPTIC SURGERY TREATMENT OF WOUNDS AND INFECTIONS

| Therapeutic Use | Antigangrene Serum | Appendix |
|-----------------|--------------------|----------|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |
| 10 | 11 | 12 |
| 13 | 14 | 15 |
| 16 | 17 | 18 |
| 19 | 20 | 21 |
| 22 | 23 | 24 |
| 25 | 26 | 27 |
| 28 | 29 | 30 |
| 31 | 32 | 33 |
| 34 | 35 | 36 |
| 37 | 38 | 39 |
| 40 | 41 | 42 |
| 43 | 44 | 45 |
| 46 | 47 | 48 |
| 49 | 50 | 51 |
| 52 | 53 | 54 |
| 55 | 56 | 57 |
| 58 | 59 | 60 |
| 61 | 62 | 63 |
| 64 | 65 | 66 |
| 67 | 68 | 69 |
| 70 | 71 | 72 |
| 73 | 74 | 75 |
| 76 | 77 | 78 |
| 79 | 80 | 81 |
| 82 | 83 | 84 |
| 85 | 86 | 87 |
| 88 | 89 | 90 |
| 91 | 92 | 93 |
| 94 | 95 | 96 |
| 97 | 98 | 99 |
| 100 | 101 | 102 |

All infants with a complicated course should be called traumatic and the term gas gangrene reserved for cases of traumatic or emphysematous gangrene.

The nature of the causat e organ m cannot
b det mined f m the clinic l picture al e
Repeated ba t r i logic l amun tions of the voun l
se ret on a e n e s a y

Serum therapy must be directed against the organisms the bacillus perfringens the bacillus plicatus the bacillus edematis the bacillus histolyticus and the bacillus sporogines. It has been possible to develop a monovalent antitoxin and antiserum for use against all five of the above. Recently attempts have been employed instead of serum mixture of these sera has been demonstrated to be most effective. As a rule a quadrivalent serum sufficient except in cases of putrefaction in which antiserum against serum should be added. A rule of general enormous injection of the serum gives the lesser result. It is for use understood that therapy should be treated a cord to surgical principles. The result is excellent.

Of sixty cases of gas gangrene occurring during the war the serum failed in only four. The intramuscular injection of the serum is recommended as prophylactic treatment.

Antiangengreneum can be used to get advantage also in cilpactice In cetat cse of append cts puepeal seps and lung gang ene it may ve lif as in thes cnditions the o g n m causng gas gr gr n may be pre nt It sh uld be used alo in cses of gang ene of unkno n et ology (ang na diabetes t)

The good results cannot always be ascribed to a purely specific action of the serum. A paraspecific component must be assumed. Apparently the use of the serum causes separation of the polybacterial group which Weinberg called "katalic".

KREUTER (Z)

ANÆSTHESIA

Gwathmey J T and Hoopes C W Preliminary
Medication General Anesthesia with Spinal
Reference to the Marginal Safety and
Postoperative Lesions of the Lung
54 98 46

The authors give preliminary medication before administering an anesthetic because it prevents psychomotor reactions, increases the margin of safety, and facilitates the removal of untoward symptoms during the induction and maintenance of the anæsthesia and prevents possible postoperative lesions in the lungs. They believe such preliminary medication is indicated with the anæsthetics used to be local spinal regional or general. Magnesium sulphate is a suitable agent to prolong the action of morphine and therefore to deepen the anæsthesia.

In 200 consecutive cases in which magnesium sulphate combined with morphine was given before operation the average length of time before a satisfactory anaesthesia was achieved was six hours whereas in a small series of cases in which morphine was given

p l a n t s e r o c a c e a e i n w h i c h m o r p h i n e w a s g i
 a d d e d t o t h e s a m e u s u a l l y n e e d e d a f t e r f o u r
 h o u r s . I n t h e f i r s t r i e s 4 0 0 c m o f a s t i l e 4 p e r
 c e n t c h e m i c a l l y p u r e s o l u t i o n o f m a g n e s u l p h a t e
 s l u t o n e g i v n b y h y p o d r m o d s 1 o n e a d o n e
 l i f b u r b f o r e t h e p e a t i o n . L a t e r e p e c e
 h a s p v d t h e n i n t r a m u c u l a r i n j e c t i o n o f 6
 c c o f a 5 p e r c e n t l u t i o n n t h r e e d i s t e d d o s e s
 i e m u l t e n t o t h e 6 g m u s e d p r e v i o u s l y

Experiments on a mal have shown that when pulmonary mediation is given, anaesthesia occurs on a relatively small dose, and that the magnitude of safety between complete anaesthesia and respiratory failure is lengthened.

In a large number of necropsies performed on animals died from the disease, the following causes were found: general anaesthesia, the use of well known drugs, occurred regardless of the anaesthetic employed. The reasons for the mortality were the following: the use of well known drugs, the use of well known drugs, the use of well known drugs.

The preliminary medication suggested for chemical phosphate lution dissolved in 2 ccm of magnesium sulphate solution repeated once or twice at intervals.

I of t enty o thirty minutes If an i hosy ne asy
1 pes nt i lld elop b fore the t me fo the third
dose If d cp anzst s a s de ired the author p
t ents are gi e a small dos f ether pa aldehyde
and of e oil r a retent n cn ma If n tro sox de
and ox gen ar employed the o yg n should be in
r s d f om the usual r p cent to from 30 t 50
per cent M R R A S C H I D

M RE A S CLH M D

Hughes C. The Present Position of Spinal Anesthesia. *Proc Roy Soc Med Lond* 1927 vii 189

The author briefly reviews the history of the induction of anesthesia by the intradural injection of drugs. Following early discouraging accidents with cocaine the method fell into disrepute and it was only after the discovery of novocaine, stovaine, alpin and tropococaine early in this century that interest in the procedure was revived.

When properly induced spinal anesthesia is suitable for the treatment of a wide variety of conditions and its mortality is low. A preliminary narcotic should always be given. The chief contraindication to the method is low blood pressure and the danger of a fall in normal blood pressure is not great if the proper precautions are taken. In a series of 500 cases the average fall was 30 per cent. The fall is apt to be greater in cases of high pressure than in those of normal pressure. A fall in the blood pressure is usually not of grave import unless it is accompanied by a rise in the pulse rate. Collapse can be guarded against by the use of strychnine or caffeine.

The author uses a 5 per cent solution of stovaine and a 20 per cent solution of sodium benzoate and caffeine citrate in distilled water. This is usually given in a dose of from 4 to 6 c cm and may be used with or without light inhalation analgesia. Throughout the period of analgesia and for one or two hours afterward the patient is kept in a moderate Trendelenburg position. Immediate post-operative complications are few and slight.

FRANK B. BERRY M.D.

Hanrahan E. M. Jr. Brachial Plexus Nerve Block. *J. A. M. A.* 1928 ix 39

Although brachial plexus nerve block has not found much favor in America the author has employed it in forty three cases. The results were perfect in thirty six cases, satisfactory in four and unsatisfactory in three. Two of the cases in which the results were unsatisfactory were those of young children. Subcutaneous infiltration was necessary to complete the anesthesia in three cases. The author prefers the supraclavicular approach of Kulenkampf. He employs from 10 to 20 c cm of 1 per cent procaine hydrochloride. It is important to obtain paræsthesia on insertion of the needle beneath the fascia before the solution is injected. In all cases in which this was done the anesthesia was entirely satisfactory. If paræsthesia cannot be obtained a wide injection must be made and half an hour allowed to elapse before the operation.

For cutting operations Hanrahan advises the subcutaneous bracelet injection of 0.5 per cent solution of procaine hydrochloride to render the skin entirely anesthetic. In cases requiring extensive manipulation morphine and atropine may be given prior to the operation.

In the author's cases brachial plexus nerve block was used for the treatment of palmar abscess, amputation of the thumb, open and closed reduction of fractures of bone of the forearm, amputation of the shoulder and the reduction of dislocations. No untoward results attributable to the anesthesia were observed in any instance.

WILLIAM J. PICKETT M.D.

Beckman H. The Alleged Synergism of Magnesium Sulphate and Morphine. *Am. J. Obst. & G.* 1925 x 7

Beckman states that in 113 experiments performed on fifty-one animals he was unable to find any evidence of synergism of magnesium sulphate and morphine. He believes that the claims of such a synergistic action are based on failure to distinguish clearly between addition and true synergism.

PODERICK V. GRACE M.D.

SURGICAL INSTRUMENTS AND APPARATUS

Lost M. H. Sterilization of Sharp Instruments. *J. Ophth.* 1928 x 3 18

Lost sterilizes his cataract knives and other sharp instruments in a solution of the following composition: alcohol 95 per cent and liquor cresolis compositus 2 per cent, 2 oz; commercial chloroform 37 and liquid albolene 2 dr.

No rust or tarnish appears even when the blades are immersed for many days. The germicidal properties of the solution were investigated by dipping threads into suspensions of various pyogenic organisms, placing the threads in the solution for varying periods and then culturing the threads. In no instance in which exposure to the solution had lasted for one minute or more did any growth appear.

The blades are wrapped in cotton and immersed in the solution for half an hour or more. The cotton is then removed and the blades are allowed to dry. The slight remaining film of albolene is wiped off. Following an operation the blades are immersed again for one minute and allowed to dry. Oxidation is prevented by the film of albolene. Staining has never been caused by this solution and there is no loss of sharpness if the blade is handled carefully.

LAWRENCE JACQUES M.D.

MISCELLANEOUS

CLINICAL ENTITIES—GENERAL PHYSIOLOGICAL CONDITIONS

Mitch H Indelible Ink Pen II Injuries 1
Sg 981 v 95

Milch reports a case of injury due to an indelible pencil and reviews the literature on such injuries. The solution of the aniline dyes—chiefly methyl violet and methyl blue—in the tissue juices produces an aseptic necrosis of the tissue which develops slowly and is apt to be extensive. As attempt to remove the offending body may break it into smaller fragments injure the protective wall about it and open the tissue spaces the rational treatment is wide excision of the wound and the contained foreign body at the earliest possible moment. RICHARD F. HEDGECOCK, M.D.

Weintrob M and Messeloff C R Gas Gangrene in Civil Practice 1 J of S 97 1 8

This report is based on 85 cases of gas gangrene treated at Bellevue Hospital, New York.

The condition was first described in 1853 but during the next thirty years little was written on the subject. The World War with its thousands of cases of infection by gas bacilli gave a good opportunity for an intensive study of the disease. During the early years of the war from 1910 to 1918 per cent of all wounds in the British Army became infected with the gas bacillus and the mortality ranged from 9 to 50 per cent.

The predominant organisms found in this infection were the blue elastic vibrios, septique and the bacillus edematiens.

The 85 cases reviewed were seen in the period of fifty years from 1910 to 1936 and represent a case of the condition to every 7310 battle admissions. In the period from 1910 to 1918 the incidence was 1 case of gas gangrene to every 644 cases admitted to the hospital. The early mortality rate in British cases averaged 40 per cent but in 1918, with better care and more knowledge of the nature and proper management of the disease the rate dropped to per cent. In the series reviewed it was 45 per cent. The majority of the patients were males between the ages of fifteen and thirty years. No case was seen in a child under five years of age.

Majority have been advanced to the cause of gas gangrene but to date none has been accepted.

The infection occurs most frequently in damaged muscle it being especially a disease of devitalized tissue. Single muscles may be affected in the extremities with no invasion of adjoining tissues. In many of the cases reviewed the condition developed after a compound fracture and in 58 per cent of the cases the fracture involved the tibia.

In addition to the local lesions in the muscle tissue the cardiovascular system is often invaded. Frequently the liver is enlarged and contains gas bubbles. Occasionally the adrenals show medullary congestion and hemorrhages.

In civil practice the condition usually develops in a lacerated wound contaminated with dirt or an apparently clean gunshot wound.

Pain is the most prominent symptom but is usually of short duration. As a rule it is followed by a sense of numbness in the part affected. Even in advanced stages of fatal cases the mentality is little affected there being a general sense of well being.

An unexplained swelling in cases of compound fracture should be considered a suspicious sign. The swelling is tense and different from the usual pre-suppurative swelling. As a result of the edema the skin becomes at first unusually pale then of a dirty cream color and then purple. The margins of the purple are sharp and distinct and irregular. They first swell and later collapse. Serous sanguinous blisters appear and are followed by a greenish yellow tint. The discharge is thin and serous. Hemorrhagic and has a characteristic pungent putrefactive odor. It contains little pus. As a rule a tickling sensation is noted on palpation of the skin.

Early in the course of the condition the pulse is rapid and the temperature relatively low. In the later stages the temperature rises. The average temperature at the time of the patient's admission to the hospital was 100.6 degrees F and the average pulse was 111. Most cases show an absolute leukocytosis with a proportionate increase in the polymorphonuclear cells. A moderate anemia is also noted. Blood cultures are infrequently show the bacilli as well as the virus.

Probably the best outline of treatment is available that which was given out by the United States Medical Corps prior to the battle of Chateau. The report in 1918 according to the utility of operation should be done as early as possible and anesthesia should be induced if possible with nitrous oxide oxygen. Longitudinal incision should be made half an inch as long as is apparently necessary in the skin and fascia. The use of tourniquets and the cutting of normal muscle to be avoided. As much as should be left as possible. The wound should be opened thoroughly and freely. All torn crushed and discolored muscle should be excised only that which is firm and normal in color and does not bleed freely being left. All loose bone and foreign bodies should be removed. After the arrest of hemorrhage the wound should be left open and filled with moist gauze. Tight packing is to be avoided. Carrel tubes may be employed if they can be properly cared for. Plenty of dressings should be used and the patient immobilized with splint.

In the cases reviewed the mortality was 83 per cent in those not operated upon 64 per cent in those treated by debridement 40 per cent in those treated by amputation and 17 per cent in those treated by debridement followed by amputation.

Serotherapy has been found of great value in gas gangrene. It seems to give the best results when it is used as a prophylactic agent. A mixed or polyvalent serum is most effective. The method of choice for its use is intravenous injection combined with intramuscular injections proximal to the wound. Serotherapy cannot supplant surgery. In civil practice it seems to be entirely secondary to surgery but its use is probably advisable after debridement.

HAROLD M. CURP, M.D.

Wilmoth G. L. Subacute Inguinal Lymphogranulomatosis. *A Report of Twenty Seven Cases*. *South M J* 1928 vii 103.

Inguinal lymphogranulomatosis is a disease of unknown etiology affecting young adults. In the United States it is seen most frequently in persons who have recently returned from the West Indies or Central or South America. There is some evidence to support the view that it is contracted by sexual intercourse. The superficial subinguinal glands are involved. No evidence of a primary lesion in the tissues drained by these glands has been observed. The pathology of the condition is essentially that of a low grade pyogenic infection. Necrosis is rather than suppuration occurs as the disease progresses and there is a peridennitis which results in fusion of the individual gland.

The incubation period is probably four or five weeks. The disease develops so slowly that medical aid is usually not sought until about three weeks after the enlarged glands are first noticed. With the development of a peridennitis the overlying skin becomes reddened and adherent. As a rule the condition is unilateral. Occasionally spontaneous recovery occurs. The treatment of choice is excision of the involved glands. LAWRENCE JACQUES, M.D.

GENERAL BACTERIAL PROTOZOAN AND PARASITIC INFECTIONS

Castellani A. Notes on Blastomycosis Its Etiology and Clinical Varieties. *Proc Roy Soc Med Lond* 1928 vii 447.

Castellani gives a classification of the clinical varieties of blastomycosis and describes the cultural characteristics of the yeast like or budding fungi included in this classification. Most of the varieties are found in the tropics but blastomycosis verrucosa affecting the skin is found in all parts of the world.

MANUEL F. LICHTENSTEIN, M.D.

Christopherson J. B. On the Treatment of the Actinomycosis Type of Mycetoma. *Proc Roy Soc Med Lond* 1928 vii 471.

This article reports a case of actinomycosis of the parotid gland which was under treatment for more

than two years. Radium and roentgen irradiation was tried but failed to cause improvement. The author believes that large doses of potassium iodide over long periods of time are necessary to obtain a cure. He has given 240 gr. daily for over five months without causing any ill effect.

MANUEL F. LICHTENSTEIN, M.D.

Barnett L. E. Colossal Hydatid Cysts. *Med J Australia* 1927 ii 878.

Barnett reports an enormous hydatid cyst of the abdomen in a man thirty nine years of age who had spent most of his life among sheep and dogs. An interesting point in the history was that when the patient was six years of age he fell heavily striking his abdomen against a projecting stone. During the thirty three years that had elapsed since the accident there had been a gradual swelling of the abdomen. Barnett believes that at the time of the injury an echinococcus cyst of the liver was ruptured intraperitoneally.

Exploratory puncture of the abdomen was negative because of the thickness of the peritoneal exudate. At operation the entire abdomen was found filled with hydatid cysts of various sizes. Eleven gallons of fluid were removed. The patient made a complete recovery.

In Barnett's opinion this cyst formation was preceded by a choleperitoneum at the time of rupture of the cyst of the liver and as a result of the liberation of bile a false membrane was formed in the peritoneal cavity.

JOHN H. GARLOCK, M.D.

DUCTLESS GLANDS

Frank R. T. Endocrine Therapy. *Am J Obst G* 1928 v 40.

The author traces the history of endocrinology from its origin in Parry's clinical description of exophthalmic goiter made in 1825 down to the present day. Our knowledge of endocrine diseases has progressed steadily. The function of the glands of internal secretion with the exception of the thyroid and pineal and a large number of syndromes due to disturbance of their function can now be outlined with considerable degree of assurance.

The noticeable advance made in the last decade was due to the fact that the pharmacologist, the physiologist and the chemist supplanted the empirical investigator. Each advance was based upon the discovery or elaboration of some specific test for a given endocrine product. Laboratory workers have shown that potent endocrine substances in minute concentration produce easily recognizable effects and in overdose may cause severe symptoms of poisoning. Adrenalin, pituitrin, thyroxin, insulin, the parathyroid hormone and the female sex hormone possess this quality.

In women the three most striking and frequent syndromes encountered have to do with the pituitary gland, the thyroid and the ovaries. The disturbances are of the hyperfunctional and hypofunctional

types. In obese patients blood studies may show a depression of the ovarian function. In rare instances there is hypofunction of the adrenal pancreas and parathyroid but by overfunction of these glands with the exception of the adrenal in childhood is not recognized.

Hyperfunctional conditions call for toning down of the hyperactivity of the affected gland. This may be done by complete ablation, partial resection and X-ray therapy. At times indirect methods such as the use of iodine in adolescent goiter are indicated.

Hypofunctional conditions require stimulation of the glands. In the case of the ovary, small doses of the X-ray increase function by killing off atretic follicles. In cases of pituitary and thyroid underactivity, substitution of the apyrmast is given. The first successful use of thyroid substance was made in 189 by Murray who gave fresh and glycerinated extract of thyroid gland to a woman suffering from myxedema and thereby kept the patient in excellent health for thirty-four years.

The author few attempts to stimulate ovarian function by means of the female sex hormone is not a sufficiently conclusive warning against a definite opinion.

It is unwise to give so-called stimulating doses of X-ray irradiation to the ovaries as the margin of safety is too small. Except in the presence of thyroid reactivity, the trial of small amounts of thyroid extract is justified to determine the patient's response to the stimulation of body metabolism.

The well-known specific effects of X-ray in ulcers and of parathyroid hormone in tetany are not included in this discussion. Pituitary doses not replace the effects of the anterior lobe of the pituitary. It is used in obstetrics, intestinal paresis and diabetes in up to 100 mg. Attempts to produce an anterior lobe extract have been only partially successful.

Such extract acts as a known to exaggerate the growth impulse of young animals and to produce marked but in overgrowth in the ovaries. Zondek reports that puberty can be induced by the implantation of adult (male or female) anterior lobe substance in the young mouse. The observation is confirmed to prove the interrelation of the gland. However, there is no tractable material for therapeutic use.

The effect of active female sex hormone extrauterine in the human female is a new chapter in endocrine therapy. The evaluation of the results obtained by its use is aided by the specific tests for identifying the female sex hormone and by the method for determining its concentration in the circulating blood. Its source is known to be in the follicular corpus luteum and placenta (the three forming the gestational gland). Only lightly potent preparations

have been obtained. The author has tried them in several classes of cases without signal success but the work is still in the experimental stage. The outlook would be more promising if more concentrated product could be prepared.

Endocrine therapy has thus been placed on a rational basis. Thyroid substance, thyroxine, insulin and parathyroid hormone are well established products. Adrenalin and pituitary subserve limited but well defined purposes. The female sex hormone is available in small amounts for experimental and clinical investigation. Anterior lobe pituitary, adrenal cortex and testicular hormone are being studied.

MURICE MEYERS, M.D.

SURGICAL PATHOLOGY AND DIAGNOSIS

MCCARTHY, W. C. A Cytological Key to the Diagnosis and Prognosis of Neoplasms. J. L. B. Co. Cl. 11 d. 98. 34.

The usual clinical groupings of pathological specimens is a folios inflammatory (acute and chronic), neoplastic (benign and malignant) and questionable (inflammatory or neoplastic).

The inflammatory group is characterized by one or more of the following phenomena: congestion, edema, necrosis, leucocytic, lymphocytic and endotheliocytic infiltration, fibroblastic and fibrocytic proliferation, hyalinization and such cytologic changes as granular degeneration, fatty degeneration, vacuolization, pyknosis and the presence of occasional giant cells.

The neoplastic group is characterized by the presence of a mass of masses of cells which do not have the exact histological arrangement of normal tissues but seem to be displacing normal tissues by expansion or invasion. If the cells are regular in size and shape and encapsulated and if they have the morphology of normal adult types of cells the condition is benign. If on the contrary they do not have the low power arrangement of normal adult cells if they are irregular in shape and size if they contain asymmetrical mitotic figures if they are hyperchromatic and if they replace normal tissues by invasion and infiltration and especially if the mass is non-encapsulated the condition is malignant.

The third or doubtful group is characterized by a combination of the characteristics of Groups 1 and 2 and so it presents the greatest differential diagnosis difficulty.

The key to the diagnosis of malignant and benign neoplastic conditions and inflammatory conditions and for prognosis is a checkable perception of the difference in detailed morphological characteristics of adult tissue cell reparative regenerative cell and neoplastic cell.

MURICE MEYERS, M.D.

BIBLIOGRAPHY of CURRENT LITERATURE

NOTE—THE BOLD FACE FIGURES IN BRACKETS AT THE RIGHT OF A REFERENCE INDICATE THE PAGE OF THIS ISSUE ON WHICH AN ABSTRACT OF THE ARTICLE REFERRED TO MAY BE FOUND

SURGERY OF THE HEAD AND NECK

Head

- Injuries to the skull and brain A M DICKINSON N York State J M 19 8 x viii 124
A case of depression of the skull in the petro squamous region M G MUFFATTI Semana méd 19 8 xxx 1
Spontaneous fracture of the posterior clinoid R L PITFIELD J Am M Ass 1928 xc 457
The normal and pathological roentgenographic image of the sella turcica in children ARCE Arch de med chir 1928 xli 779
Primary sinus thrombosis M S PEUBEN Arch Pediat 1928 xli 98
Bilateral thrombosis of the posterior cerebral artery J P MARTIN Proc Roy Soc Med Lond 1928 xli 11
Extensive lupus of the face of a young girl with microstoma ectropion and early malignant squamous papilloma W J O'DONOVAN Proc Roy Soc Med Lond 1928 xli 686
Plastic of the face and jaw following excision for carcinoma G P MULLER Ann Surg 1928 lxxxvi 36
Osteofibroma of the superior maxilla J A MCCREERY Ann Surg 1928 lxxxvii 304
Resection of superior maxilla for osteosarcoma with preservation of hard palate Well nine years after operation J DOUGLAS Ann Surg 1928 lxxxvii 393
Fibroma of the lower jaw J A MCCREERY Ann Surg 1928 lxxxvii 30
Salivary lithiasis and its relation to primary actinomycosis of the salivary gland and ducts G SODERLUND Acta chirurg Scand 1928 lxxxvii 1111 Supp IX

Eye

- The position of the ophthalmologist in the medical profession R H BUCK Illinois M J 1928 lxi 36
The relation of ophthalmology to the prevention of blindness E JACKSON Am J Ophth 1928 xli 35
Sitting down, class work from the standpoint of the ophthalmologist E V I BROWN Am J Ophth 1928 xli 118 [44]
Unilateral sight L MILLS California & West Med 1928 xxviii 189
Hyperphoria cured by operation F A WILLIAMSON Noble Proc Roy Soc Med Lond 1928 xc 699
Report of two cases of primary optic atrophy D S LYLE J Med Cincinnati 1928 viii 594
Tuberculosis of the eye W C FINOFF J Am M A 1928 xc 341
Edema of the upper eyelids J ROBERTS Brit M J 1928 xli 307
Melanosis of the lid and conjunctiva C WALKER Proc Roy Soc Med Lond 1928 xc 1689
A melanotic tumor of the lower lid A I MCCALLAN Proc Roy Soc Med Lond 1928 xli 690

- The surgical treatment of trachoma L W FOX Med J & R 1928 xcxi 117
The pathology of the lachrymal glands in chronic epithelioma M N BLIGELMAN Am J Ophth 1928 xli 35 [447]
Extraction of a thorn from the orbital cavity C N SHROFF Brit J Ophth 1928 xli 94
A bilateral tumor of the orbit M WHITING Proc Roy Soc Med Lond 1928 xli 97
Pannal conjunctivitis J C MARSHALL and H NEAVE Proc Roy Soc Med Lond 1928 xli 93
Pannal conjunctivitis C D VERRY and K T A HLBERTON Brit J Ophth 1928 xli 9 [447]
Foreign bodies within the eyeball J O McREYNOLD Trans State J M 1928 xli 66
Conjunctival microphthalmos accompanied by other malformations of the body A M YUDKIN Am J Ophth 1928 xli 11
Dissection of the internal rotation of the eyeball J HUNTER Med J Australia 1928 xli 15
Strabismus as a symptom in congenital syphilis J B DICKEY J Am M A 1928 xc 383
Congenital strabismus E J LEVY and M B LYON J Indian Stat M Ass 1928 xli 66
The diagnosis and treatment of squint S A AGRESTON Med J & Rec 1928 xcxi 87
An apparatus for heterophoria and squint cases K R SMITH Proc Roy Soc Med Lond 1928 xli 100
Some notes on glaucoma J B LEWIS Med J Aust 1928 xc 32
Glaucoma precipitating an attack of acute glaucoma D T VALE JR J Med Cincinnati 1928 xli 59
A peculiar case of glaucoma E F HENDERSON and R R JAME Brit J Ophth 1928 xli 74
Intra-ocular hypertension relieved by focal and systemic infections C W GEIGER and J H ROTH Ill n 1928 xli 110
Non-operative treatment of glaucoma H GRADLE Illinois M J 1928 lxi 16
The non-operative treatment of chronic glaucoma S B MARLOW N York State J M 1928 xli 181
Retrolenticular posterior sclerotomy in glaucoma complicated by corneal retroconjunctival infection J S FRIEDENWALD Am J Ophth 1928 xli 35 111
Ptoleus sclerotomy for glaucoma H FRIEDENWALD Am J Ophth 1928 xli 35 67
Indotasis operation for glaucoma M GOLDENBURG Illinois M J 1928 lxi 101
A solitary patch of chorioiditis in the H NEAVE Proc Roy Soc Med Lond 1928 xc 696
Relapse of interstitial keratitis H NEAVE Proc Roy Soc Med Lond 1928 xc 694
Corneodesmectomy in old interstitial keratitis B LANG Proc Roy Soc Med Lond 1928 xli 698

The result of the treatment of the ulcer of the rat. A C H D
so P c R y S c M d Lo d 9 8 693
Specie time of p n m culce of th corn
M P D NKELSP E M d J & Rec 9 8 cx 1 34
Sympt th t ndocy lit n t a myth V K HART
V gi M Mo th 9 8 l 726
Som f t s f g l c m mpicat g nd cycl tis
F T To KE Am J Ophth 9 8 3 97 [447]
Cy l pl g ef ton D W WE s Am J
Ophth 9 8 3
M l n t m f th l ry body (section) E
C KE P R y S c M d L d 9 8 693
C t t ad p t p t tet y L J COUES Am
J M S 9 8 lx 85 [447]
S l e t t P B WRng Calif & W t M d
9 6
D pp f c t act C B GOULDEN P oc R y
M d Lo d 9 8 693
L y p t t t t H MOULTON J
Okl h m St t M A 9 8 36
Ad t f th B aq m th d mm t d
hvp m t t ct O W LEE J l w Stat M S c
9 8
Th ft 49 lt f t rat tracti n R C DAVE
or B t J Ophth 9 8 85
D th f d g ha d n g ccommoda
t n? E P Fo TEN R d sp l d d 9 7 76
[448]
r m f p p p l r y m mb J L J 6 Pa f R
t ft l m l y d cru l 9 354
Ch d t j p p l l I C M N N P c R y
S M d Lo d 9 8 69
Dru g l g d f t y D CARDELL P c
K y So M d Lo d 9 8 69
A d t k f th f d cul J P CALHOUN
Am J Ophth 9 8 3 9 [448]
A d t k f th f t J M G SCOM Am J
Ophth 9 8 3 05 [448]
R t t th p g m t f rmat J L J 6 Pa f R
ot -oftalm l y d c rug l 9 8
R t t p t t l be ? H N P R y
So M d Lo d 9 8 699
M l d e t ft t t ta H
N IE P oc R y S Med L d 9 8 x 7
B l t l m l a d e t A C HUDS V P o
P y S c M d L d 9 8 693
B l t l m bol m f th t l et l t ry T G W
PARR B t M J 9 8 8
Sypl t pt t l s pt n nt s?
C C ur l R m d d Ch l 9 8 l 6
E l t h m m th d tg y d d m
m l g t d f th y d th o t J T
STEVE S J Med S A f h y 9 8 99
P n al em f th e t f ea l cal
a a thet i y s g ry C K LE A es d An l
9 8 v 9

E r

Th t my d phys l gy f th r P M LR
A h Ot l r y g l 9 8 67
R pot f f l t m of th m mb a
t y m p r R c M N l r y n c p 9 8 4
Th p bl m f t l A L TUR R J L ry
g l & Ot l 9 8 l 8
A n t l l st t f ot cl J S FR
J Lary l & Ot l 9 8 l 84
Th cl lap t f t cl L A LEE ov J
L ry g l & Ot l 9 8 l 85
The ol of yphili n d th t w l A T
WANAMAKER L yng c p 9 8 xxx 6

The v f c ty sed ment t t t (F h u) t l y
A WISS L r y l s c p e 9 8 xx 1 85
Th G de g synd m P A CHE T s St t
J M 9 8 u 666
Tw c s s f h p r ul t t t m d a with f m
b c l l d sp n l l a R MORRA l l ch R m 9 8
c p t 83
A c f t t t m d a with r y r p d l l
m t f th l t r al and b th m ss s L POWELL
P P y S Med Lo d 9 8 6
Ot t s mod f cy G M CLINE III M J
9 8 l 3
Th t l l gy d path g f t p s t t
A MALHERBE P m d P 9 8 2
S pt am s d r y t cut m d l l f c t n
C G C E Lary p 9 8 7
A f t t pt am C G P WOOD P c K y
S Med Lo d 9 8 6
Ot h r d the f m l y doct G B McA Z e
M d J & R 9 8
Ot h l g l h am h g a d m meth d f
c t l P S S o t L r y n p 9 8 x
Th ad l gy f th m l d b m l l by th
H G Ho cs J Lary n f & Ot l 9 8 l 9
A t n b t t th phy l y of th t l l y
t h f th e IRUE TE d R D M d l be 9 7
58
Th s l m t d t () f t () l t e
af brl m t d t V K HL R S th M A S 9 8
c 84
P l m t d t H B S ITH N Y k St t
J M 9 8 3
M t d t n f t J H McC EADY Atl t c
M J 9 8 x 06 [448]
Th n f t m d f f f t H W
LYMAN S th M J 9 8
C m pl t f t m t d t d o d
t m t n M E SCOTT Oh St t M J 9 8 x

No e nd Sinus s
Tw f h phym S LGLAVE J M d C
t 9 8 597
C mm l d O H JUDAN T St t J M
9 8 6
I u z t th w tech q A C MPBELL
J L y g l & Ot l 9 8 l 99
O f th p t t t m t f x P l m ry
c mm t K B STE M V L r y p 9 8
xx 80
M p t e c t f p th l m f the t b l
f th n b f d m th ft t m t th
d m S r J DUNDAS G n r l l y S c Med
Lo d 9 8 xx 666
F b m t f the t ted by d m F A
PETE S d N A HE s V P y S M d Lo d
9 8 u 666
Ad bl e d w l t f l p l t p t
d bm e c t J N FI V I ry p
9 8 xx 97
A dh pl t b d g f pl t l p t
J N F HEIN L ry ng p 9 8 x
A f t ted sh l d f t g phy f th l
e ry J D BLOCKE R d l gy 9 8
63

Sinusitis—its relation to general or systemic conditions W L GATEWOOD Virginia M Month 19 8 liv 718

Displacement irritation of the nasal sinuses with solution D W LAYMAN J Indiana State M Ass 19 8 x 1 60
Mucocoele of the accessory nasal sinuses C A HEATH Arch Otolaryngol 19 8 vii 50

Various facts concerning the frontal sinus W MITCHELL J Med Cincinnati 1928 viii 568
External operation on the frontal sinus a critical review W MITCHELL Arch Otolaryngol 1928 viii 133
An ethmoidofronto-phenoidal mucocoele operated upon by the endonasal route E A SEGURA and H ZUBIZARRETA Rev oto-neuro-oftalmol y de ciruj. neurol 1927 i 329

Carcinoma of the ethmoid treated by operation and radium H KISCH Proc Roy Soc Med Lond 1928 x 1 663

Two cases of sphenoidal fissure syndrome J Lajo PAVIA and O ROGEE Rev Soc de med interna J Soc de tissol 9 ii 53

Myoepithelioma of the nasal wall in the sphenoid ethmoidal region case report A LOBELL Laryngoscope 19 8 xxviii 83

A new sphenoidal trocar and cannula for dia-nostic puncture and treatment of the sphenoidal sinus technique W SPIELBERG Laryngoscope 1928 xxxiii 122

The anatomy and structure of the superior maxilla pathological and therapeutic deductions C RUPPE Arch internat de laryngol 19 7 xxviii 1153

The anatomy and pathology of the maxillary sinus E F DAVIS J Oklahoma State M Ass 1928 xvi 34

The dental etiology of maxillary sinusitis in children P MANGABEIRA ALBERAZ Arch internat de laryngol 19 7 xxviii 1 84

Mouth

The problem of the child with harelip and cleft palate J D McEWATER Canadian M Ass J 1928 xxviii 10

The dia-nostic importance of roentgenographic occlusion J P USLENGHI and C F DE LA TORRE Rev de especialidades 19 7 ii 1166

Accidents of primary dentition C D AVELLANAL Rev de especialidades 1927 ii 1262

Dental caries its cause and cure BELL N Zealand M J 19 8 xxviii 8

Dental anesthesia E BLATCHFORD Canadian M Ass J 19 8 xxviii 783

Oal sepsis from the standpoint of internal medicine T P SPRUNT Virginia M Month 1928 liv 61

The present state of our knowledge of gingivitis R A KELLEY J Lab & Clin Med 1928 viii 45

Diathermy in inflammatory buccodental processes J P USLENGHI and A A MENDILHARZU Rev de especialidades 1927 ii 1190

Adenomatous mucous glands W A GOLDSMITH Proc Roy Soc Med Lond 1928 xxi 687

Septic gangrene of the floor of the mouth A VACHEY and M DECHALME Lyon chir 1927 xxi 642

As specimen of congenital macroglossia J MAXWELL Proc Roy Soc Med Lond 1928 xxi 56

Alia from abscess of the tongue controlled by cocaine of the nasal ganglion F H HANSEL Arch int 1928 viii 163

Treatment of cancer of the tongue by radiotherapy electrodiathermy coagulation GONZALEZ J chirug y especial 1928 ix 24

nt of cancer of the tongue N specialidades 1927 ii 118r

Diathermy coagulation of an epithelioma of the mouth T EIRAS Tolha med 1928 ix 9

Pharynx

The diagnosis and treatment of conditions commonly seen in the throat M H WILLIAMS Virginia M Month 1928 liv 723

A new treatment for Vincent's angina R G REAVIS Arch Otolaryngol 19 8 viii 166

The Boeckman-Kaplan safety adenoid curette C KAPLAN Laryngoscope 1928 x viii 1

The pharyngeal tonsil W L COOKE Am J Dis Child 1928 xvi 29

Tonsillitis Rev med Lat Am 19 8 viii 655

A report on the use of the d'Arsonval current in the removal of tonsil J BUFF J Med Ass Georgia 1928 viii 62

Snare dissector tonsil operation W J GATEWOOD Laryngoscope 19 8 xxviii 17

Diathermy removal of the entire soft palate and one tonsil for endohehoma D MCKENZIE Proc Roy Soc Med Lond 19 8 xxi 665

Microscopic sections and drawings from a case of lymphosarcoma of the pharynx and nasopharynx Sir J DUNDAS GRANT Proc Roy Soc Med Lond 19 8 x 1 666

Neck

Torticollis congenita A IFFLSTADIS Acta chirurg Scand 1927 lvi 386

Acute cellulitis of the hypopharynx and neck with extension to the mediastinum T MARSHALL Am J Surg 1928 ix 14

Ray burns of the throat report of two cases E L POSEY South M J 1928 xxi 155

The gouter problem G W MIDDLETOWN Northwest Med 1928 ix 1 60

The commoner types of gouter—clinical and pathological classification D S PUTFORD California & West Med 1928 xxviii 183

The pathology of gouter A E HERTZLER Endocrinology 1928 xi 58

The azocarmine-mallory staining of gouters A TROELL Arch f klin Chir 19 7 xvi 754 [449]

Con genital gouter GONNET and DESJACQUES Bull Soc d'obst et de gynéc de Par 19 8 xvi 86

Con genital gouter E W PETERSON Ann Surg 1928 lxxviii 297

Gouter non surgical types and their treatment I BRAM Med J & Rec 1928 cxxviii 14

Gouter during pregnancy J W GIBSON South M & S 19 8 xc 80

Gouter in Sardinia F PUTZL Arch ital di chir 1927 xx 199

The use of iodine in gouter R R ELMORE Kentucky M J 1928 xxvi 6

The effect of thyroid therapy on children A TOPFER and P CORTEZ Am J Dis Child 1928 xxvi 0

Tuberculosis of the thyroid gland I W SMITH and J A LEECH Surg Clin N Am 19 8 viii 183

Acute suppurative thyroiditis secondary to a urinary infection J SALLERAS and A COLODIERO Rev de especialidades 19 1 1056 Semana med 19 xxviii 1491

Neuropsychiatric disorders and hyperthyroidism I M JAMES J Lancet 1928 xxviii 43

An illustrative case of severe hyperthyroidism its management R L MASOV Surg Clin N Am 1928 viii 81

Brain surgery with special reference to exposure of the brain stem and posterior fossa the principle of intracranial decompression and the relief of impactions in the posterior fossa H C WAFZIGER Surg Gynec & Obst 1928 xlii 240

The development of the meninges in amphibia A study of normal and experimental animals Preliminary note I B FLEXNER Bull Johns Hopkins Hosp Balt 19 8 xlii 67

Unilateral symptoms in meningitis A LEVINSON J Am M Ass 19 8 xc 50

Pneumococcus meningitis recovery with serum therapy J HARRAVY J Am M Ass 19 8 xc 597

Pneumococcus (Type IV) meningitis report of a case treated by forced subarachnoid drainage with recovery J H GLOBUS and J I KASANIN J Am M Ass 9 8 xc 599

Tuberculous meningitis T C SMITH Kentucky M J 19 8 xxi 67

Morvan's syndrome unilateral pachymeningitis and a chondritis intraspinal lipiodol J J PUENTE K ORLANDO and E DOWLING Rev Soc de med interna y Soc de tisiol 192 iii 370 [454]

A case of cerebrospinal meningitis with recovery K M BASU Indian M Gaz 19 8 lxiii 80

Primary diffuse sarcomatosis of the leptomeninges M R CASTEX J LAMBIAS and S BALESTRA Rev Soc de med interna y Soc de tisiol 19 8 xlii 423

Palatolaryngeal nystagmus S A K WILSON and W E REES Proc Roy Soc Med Lond 1928 xxi 513

Note on a forgotten sixteenth century disputation on smell J H KENNETH J Laryngol & Otol 19 8 xliii 103

Injuries of the orbital portion of the optic nerve D H ANTONOV New Orleans M & S J 1928 lxxv 19

The treatment of trigeminal neuralgia DROTT Zen trailb f Chr 19 7 liv 2400

Retrospective neurotomy DE MARTIL Bull et mem Soc nat de chir 19 8 liv 2

Forty nine cases of retroassian neurotomy R LERICHE Bull et mem Soc nat de chir 1928 liv 4

Differential section of the trigeminal root in the surgical treatment of trigeminal neuralgia B BROOKLY Ann Su 192 lxxvii 172

A case of trigeminal neuralgia multiple interventions without result complete recovery after retroassian neurotomy HORTOLOMI and ROBINET Bull et mem Soc nat de chir 1927 liii 149

Demonstration of specimens of the sphenopalatine ganglion J F KLEPPER Laryngoscope 1928 xxxviii 41

Facial diplegia M ALURRALDE and M J SEPICH Rev de especialidades 1927 ii 4

Facial nerve paralysis D W WENNICOTT Proc Roy Soc Med Lond 19 8 xx 565

Facial nerve palsy is associated with fits D W WENNICOTT Proc Roy Soc Med Lond 9 8 xxi 566

Transitory facial paralysis resulting from local anasthesia of the mastoid process Prese med Par 9 8 xxvi 124

Considerations on 1008 cases of facial paralysis A M MARQUE Rev oto-neuro-oftalmol y de cirug neur 1928 ii 2 Rev de especialidades 19 8 xxi 566

Supradiphragmatic and subdiaphragmatic agonia G IERI and U TAVERNA Ann ital di chir 19 8 vii 5

Spinal Cord and Its Coverings

Subacute combined sclerosis of the cord of sudden onset S C H WORSLEDINE Lancet 1928 ccviii 338

Traducral spinal tumors—primary secondary metastatic C A EISEBERG Surg Gynec & Obst 19 8 xlii 1 [454]

Two cases of spinal tumor N DOTT Edinburgh M J 1928 xxx Med Chir Soc Edinburgh 30

Tumors of the spinal cord A M KENNEDY and L ROGERS Lancet, 19 8 ccviii 225

Familial spastic spinal paralysis with status dysmylelinicus T TOMIETTI Policlin Rome 19 7 xxviii sez med 636

Peripheral Nerves

The syndrome of spontaneous polyneuritis I GRIMBERG N York State J M 19 8 xxi 207

Diphtheritic polyneuritis S G BEYRNE and J M PAPISI Rev Soc de med interna y Soc de tisiol 19 7 iii 597

Neurofibromatosis (von Recklinghausen's disease) in a woman three children affected with the form frust of the disease H W BARBER Proc Roy Soc Med Lond 1928 xli 676

Brachial neuralgia in pulmonary tuberculosis IER NANCEZ SANZ A h d med ciru y especial 9 viii 38

The prevention of injury to the musculospiral nerve E B TWEED California & West Med 9 8 xlii 3 [455]

Considerations on nerve grafts after the sciatic nerve J JIANU and G BLZOLANU Lyon chir 1927 v 6

The results of suture of the peripheral nerves GONZALEZ A CLAR Pro d la lin Madrid 1928 x 135

Sympathetic Nerves

Vascular disturbance as an explanation of nevus symptomatic A L MILLS Med J Australia 1928 i 16

Syndrome of the left superior cervical sympathetic ganglion and the brachial plexus syndrome due to a bullet wound M R CASTEX A I CANIVET and A BATRO Rev Soc de med int naya Soc de tisiol 19 7 iii 61

Local sympathectomy in freezing A SIMONI Ann tal di chir 1927 i 76 [455]

The value of sympathectomy in the treatment of some affections of the limb C BERTONE Piforma med 19 8 li 103

Resection of the superior hypogastric nerve and in sections of the pelvis D FLEY Presse med Lar 1928 xxxvii 100

Miscellaneous

The cerebrospinal fluid in children M G PETTIPAN Wisconsin M J 19 8 xlii 9

The cerebrospinal fluid in the newborn J P GARRAHAN and L D ASCOLI Semana med 1927 xxvi 180 Rev de especialidades 9 7 i 272

The measurement of albumin in the cerebrospinal fluid I C ARRILLAGA and C LECHNIEWSKI Rev ot-neuro-oftalmol y d ciru neur 1928 ii 1 S mana med 9 xx 815

The lipoids of the cerebrospinal fluid M BALADO and E IRANEA Rev de especialidades 19 8 xlii 131

Chloride of neurology 19 7 i 9

The relative diagnostic value of the concentration and the glucose content in cerebrospinal fluid A S GIORDANO and M ANSELON J Lab & Clin Med 1928 vii 48

The practical value of Boer's reaction in hemorrage of cerebrospinal fluid G LAMBERTI Riforma med 19 8 xli 7

- The etiology of postoperative abscess of the lung T C CUTLER Ohio State M J 19 8 xiv 109 [458]
Pulmonary gangrene abscess of the lung, thoracopneumotomy neosalvarsan recovery PETIT DE LA VILLE Bull et mcm Soc d chirurgiens de Par 19 xiv 75f
Pulmonary gangrene following diphtheria report of a case C T OLCOTT and J G MERSELIS Am J D Child 1928 xxxv 50
The roentgenological manifestations of primary carcinoma of the lung II Bronchial type B R KIRKMAN and P PATTERSON Am J Roentgenol 1928 xiv 7
Report of a case of primary carcinoma of the lung C W MACMILLAN Canadian M Ass J 19 8 xviii 5
Two cases of pneumothorax W A ALEXANDER Edinburgh M J 19 8 xxv Med Chir Soc Edin burgh 33
Spontaneous pneumothorax in the course of two pregnancies E DUHOT Bull et mcm Soc med d h6p i Par 19 8 xiv 37
Subpleural cysts P A MAISSA Rev de espe ali6le 1921 ii 117
A case of pleurisy due to cholera in the presence of a septicemia in the effusion F OUVILLARD and NATHAN Bull et mcm Soc med d h6p de Par 1928 xviii 7
Acute pleural empyema a clinical radiological study P B BRITMAN and R A ARNS Radiol y 9 8 x 153
Pleurisy and tuberculosis secondary to pleurisy O SCRIEVE and T FOEY Acta med Scand 19 8 lxviii 5
Pleural lavage with lime water in purulent pleurisy secondary to the induction of artificial pneumothorax J I MIERES Semana med 1928 xxvi 53
Postpneumonic interlobar empyema G W N 11 and D R BOWEN Atlantic M J 19 8 xxi 83
Chronic empyema-etiology and treatment H I BEVE J Iowa State M Soc 10 8 xviii 41
An open safety pin in the esophagus A B I VLX SMITH J Laryngol & Otol 1928 xliii 107
A foreign body in the esophagus causing dysphagia W S THACKER NEVILLE J Laryngol & Otol 1928 liii 0
Dysphagia of the esophagus II A MASCITRONI and J I TURRELL Arch argent de enferm d april 1928 0 iii 40
Esophageal pulsion on the left of the thorax F H LAUREY Surg Clin N A 1925 viii 5
Esophageal and urethral obstruction in myxœdema H H RICKLER J Michn an State M Soc 19 8 x 110
Blatancy of the esophagus report of a case I I VIN A C BRIDGERS and H MONTGOMERY Surg Clin & Ost 9 8 lvi 255
A case of cancer of the esophagus I M HARRIS Illn M J 1928 liii 97
A report of a case of esophageal cancer developing in a mediastinal cyst MADIWATTA ALLOM O and GARCIA MEXIA Cl d med cirug y espec 19 7 ii 15
Tension pleurisy of the esophagus W H C I WARD and D I A NEILIN Lincet 925 cc iv 54
Thyroiditis in J L MURF Boston M & S J 1928 54 [458]
Miscellaneous
Anaphylaxis in the air passages P G ALLAN L K PINLES Radiol y 928 x 157
Surgical aspects of chest injuries C D LOCKWOOD Clin & Wct Med 1928 iii 17
Statistics of the common cold II A study of certain germ growth and paucity of the upper respiratory tract K C MILL C S SMILEY and A R

Miscellaneous

- The extent of the capillary bed of the heart J F WEARN J Exper Med 1928 xlviii 273
Primitive human hearts Cor biloculare a d t l culare report of cases P H WOOD and G A WILLIAMS Am J M Sc 1928 clxxv 242
Hydatidosis of the heart L AGOTT J R GOWAN and A L BIANCHI Semana méd 1927 xxvii 117
Suppurative pericarditis A J WELCH and A S WELCH J Missouri State M Ass 1918 xx 6
- Esophagus and Mediastinum**
Foreign body in the esophagus difficult removal I SEWELL Brit M J 1928 ii 176

Abdominal Wall and Peritoneum

- | | |
|---|---|
| An unusual case of rupture of the abdominal wall from a hernia. C. FELI OVI. Semana méd 1928 xv 29 | One hundred consecutive hernia plasties with end results. M. N. HADLEY. J. Indiana State M. Ass. 1928 xv 63 |
| Abdominal wound rupture. H. M. CLUTE. Surg. Clin. N. Y. M. 19. 8. viii. 123 | An end met. inf. tumor of the umbilicus. F. I. COLES. P. C. Roy. Soc. M. L. Lond. 1928 xv 538 [460] |
| Hernia strangulated through the broad ligament. M. STIVSON. Am. J. Obst. & Gynec. 925 xv 51 | Irreversible gangrenous ulceration of the abdominal wall. A. M. SHIPLEY. Ann. Surg. 1925 lxx 11 24 |
| Reduction en bloc of strangulated hernia. C. M. SMITH. Jr. Ann. Surg. 928 lxxviii 3 3 | Acute peritonitis due to spontaneous ectasis of the transverse colon. Mikulicz. tempo ad recovery. G. MIGNANI. Arch. franco belges de chir. 1927 xxx 23 |
| The reduction in mass of strangulated hernia. J. CHALANZY. Rev. de chir. Par. 19. 8. xli 1 291 xlvii 33 | |

- Three fatal cases of dysenteric enteritis directly secondary to gastroenterostomy or extensive gastric resection for ulcer of the stomach REISCHAUER *Zentralbl f Chir* 1927 liv 2724 [467]
- De astro-enterostomization M THALHIMER *J* 1927 chur 19 xxx 38 [467]
- Excision of the stomach for gastrojejunal ulcer I H LAHEY *Surg Clin N Am* 1928 viii 35
- Note on stomach resection S M JORDAN *Surg Clin N Am* 1928 viii 83
- The acidity of the stomach following gastric resection E PERMAN *Zentralbl f Chir* 1927 liv 266 [468]
- Gastric reeducation LÉON MEUNIER *Travsc d Par* 1928 xxxvii 28
- Intrathelmal volvulus M MALFATTI *Semana med* 1928 xxxv 40
- Studies in intestinal obstruction I A Compagnon *f the twenty of normal and of obstructed intestinal content* O H WANGSTEEN and S S CHUEN *Arch Surg* 1928 xvi 666
- Acute intestinal obstruction—with a report of six cases I H FINCH *N York State J M* 1928 xiii 19
- Acute intestinal obstruction by bands in children C GIBSON *Brit M J* 1928 i 176
- Repeated intestinal obstruction COSVELL and BISSER *Bull et mem Soc nat de chir* 1927 liii 0 [468]
- Acute intestinal obstruction complicating pregnancy R B BERTMAN and S W IERMAN *J Am M As* 1928 xxx 384
- The value of sodium chloride in hypertonic solution and in large doses as a curative or preventive measure in toxication resulting from obstructions of the digestive tube A GOSSET, L BRUNET and D LÉVY DUBAIL *Presse méd Par* 1928 xxxvi 17
- Infantile malformation of the intestine D BRACCHETTO BRUNO and S I BERTINOTTI *Semana med* 1927 xiv 1740
- Intestinal absorption—a search for a low residue diet HOSOR W C ALVAREZ and F C MANN *Arch Int Med* 1928 xli 122 [468]
- The pathological histology of the intestine of the dog in ankylostomiasis P KOURI *An Fac de med y farmacia* 1927 i 45
- Intestinal amebiasis of the rat and man K M IVNER *South M J* 1928 xxi 87
- Pathology of intestinal tuberculosis A BLUMBERG *J Lab & Clin Med* 1928 viii 40
- The pathogenesis of intestinal typhoid hæmorrhages J CATARAS *Presse méd Par* 1928 xvi 51
- Peritonitis and perforation in the course of a severe typhoid fever intervention recovery R GREGGIERE R REDON and R WORMS *Bull et mcm Soc méd d hôp de Par* 1928 xiv 16
- Intestomitis in peritonitis H M CLUTE *Surg Clin N Am* 1928 viii 9
- A case of lymphoma coma of the intestine G GIULIANI *Arch Ital di chir* 1928 xv 63
- Stenosed adenoma of the intestine W T FOTHERINGHAM *Rev méd d Rosario* 1927 vi 1673
- Istoperative enterorrhaphy O CASTELLO *Passo a internaz di clin e terap* 1928 ix 30
- Biliary ileus D DEL VALLE and R E DONOVAN *Semana med* 1927 xxxvii 566
- Postoperative ileus C O E TREM *Minnesota Med* 1928 xi 83
- A case of spasmodic obstruction of the small intestine following interval appendectomy R JACQUEMAIRE *Bull et mem Soc d chirurgiens de Par* 1927 xiv 815
- Acute intestinal invagination in an adult D FERRY and I M CUVENAT *Bull et mem Soc nat de chir* 1927 liii 1427
- Acute intestinal invagination in infants GIBSON *Ann Surg* 1928 xxxv 378
- Intestinal invagination in infants I H MACDONALD *Med J Australia* 1928 i 18
- Intestinal perforations of the upper intestinal tract URRUTIA *Arch d med chir y especial* 1928 viii 5
- Mahnant li my ma of the small intestine BONALAU *Bull et mcm Soc d chirurgiens de Par* 1928 xv 5
- Dia n is fangen of the small intestine I V CHARURE *Brit M J* 1928 i 1
- Acute intubation to the path of pendulodentitis C THYLLERA *Arch Ital di chir* 1928 vii 4
- Hydrogen content and the ferment content of the duodenal contents A NORO and F I HRS *Prav Ev Actum d Scand* 1928 lxviii 18
- Diverticulum of the duodenum VILLANER *Brit M J* 1928 xvi 41
- The case of duodenal compression NAVARRO *Bull et mcm Soc nat de chir* 1927 liii 33 [469]
- The duodenal compression J L SCHUBER *Nel aska Stat M J* 1928 i 46
- Experimental chronic duodenal structural changes in the duodenum of the guinea pig B N BEIC and J W BULL *Arch Surg* 1928 i 593
- Reproduction of the bovine duodenal jejunal junction L J JEFFREY *Ann Surg* 1928 liii 131 [469]
- Intestinal diverticulum—ulcerous or traumatic? G. KARLIZ and P. N. MIKULICZ *Drum* as the only treatment rec. of C. KARLIZ *Bull et mcm Soc nat de chir* 1927 liii 05 [470]
- Later epigastric pain in the duodenum in cases of duodenal ulcer A. AKERLUND *Acta radiol* 1927 iii 548
- Löbner May c lu in f duodenal ulcer C L GIN *S N Am Surg* 1928 liii 301
- Use of the afferent and efferent splanchnic nerves of the stomach in the treatment of duodenal ulcer and megaduodenum G. BERT *Zent albl f Chir* 1927 i [470]
- Obstruction of the first part of the jejunum M MIRANDA GILVINO *Le despecalidás* 1927 ii 1102
- The iliocecal sphincter R BROUČA *Semana med* 1928 xv 05
- Three perforations of the ileum caused by fish bones G. KARLIZ *Brit M J* 1928 i 397
- Intestinal anastomosis due to a carcinoid J. F. W. BR. CHIR *Med d la Suis e Rom* 1928 i iii 50
- Intestinal fistula after resection C. I. ISAAC *Brit M J* 1928 i 25
- Intestinal fistula versus the hiatal hernia J. I. KANTOR and S. SCHUBERT *Am J eugen* 1928 ix 01
- Spasm due to prostatic hypertrophy G. G. G. *Semana med* 1928 xiv 105
- Chronic proctitis of the right side I. AMBIT *Arch franco bel e de chir* 1927 xv 1
- Intestinal fistula Lancet 1928 ix 36
- The surgical treatment of diverticulitis *Brit M J* 1928 i 10
- Considerations on the pathogenesis and lesions of mucocutaneous colitis HANNAERT and J. M. VIERIS *Bruevilles med* 1928 viii 315
- Chronic ulcerative colitis with reference to a clinical etiology experimental studies M. PAULSON *Arch Int Med* 1928 xl 75 [471]
- Differential diagnosis of amoebic dysentery and chronic ulcerative colitis by proctoscopic examination I. A. BUIE *Surg Gynec & Obst* 1928 xlii 213

- Tuberculosis of the gall bladder J T CASE Ann Int Med 1928 1 482
- The status of gall bladder surgery S H MENTZER J Am Med Ass 19 8 xc 007
- An outline of the most notable facts concerning the evolution of gall bladder surgery—remarks on cholecystomy without drainage H J VANDYBERG J Michigan State Med Soc 19 8 xxvii 85
- Subserous cholecystectomy without drainage F DESMARIST J de chir 19 7 xxx 641
- An air cushion for cholecystectomy R I MAYS Surg Clin N Am 1928 xviii 93
- Gastro enterostomy following adhesions after cholecystectomy C L GIBSON Ann Surg 1928 lxxviii 300
- Certain effects of obstruction of the bile ducts V S COUGELLER Ann Surg 19 8 lxxviii 10
- Common duct stone F H LAHEY Surg Clin N Am 1928 xviii 1
- Concurrent cystic dilatation of the common bile duct B C WILLIS Ann Surg 19 8 lxxviii 49 [474]
- Reconstruction of the common duct with rubber catheter CATALINA PRIETO Prog de la clin Madrid 19 8 16
- The excretion of cholesterol by the intestinal tract H SALOMON Semana med 1928 xxvi 166
- A case of accessory pancreas R ALISSANDRI Ital di chir 1928 vii 1
- An accessory pancreas simulating gastric ulcer C C HEYD Ann Surg 1928 lxxviii 150
- Pancreatic secretin GONZÁLEZ CRUZADO Pro d la clin Madrid 1928 xvi 59
- The pancreatic syndrome and its importance C CAUTIERO I forma med 1927 lxi 1102
- Acute pancreatitis J L DELMORE Minnesota Med 1928 xi 80
- Hæmorrhagic pancreatitis and its mechanism on the basis of recent studies P E MOPHARDT P e se méd Par 1928 xcvi 52
- Acute pancreatitis hæmorrhagica A R GARNER Atlantic M J 1928 xcvi 314
- Cholecystenterostomy for chronic pancreatitis C I GIBSON Ann Surg 19 8 lxxviii 300
- Pancreatic lithiasis S J SEEGER Radiology 19 8 x 116
- Pancreatic cyst H KLINZING Atlantic M J 19 8 xxxi 315
- A case of pancreatic cyst associated with diabetes O A BEADLE Guy's Hosp Rep Lond 19 8 lxxviii 82 [474]
- Possible utilization of recent perimortal data for the diagnosis of occlusion of the pancreatic duct G MARTINO Policlin Rome 1927 xxv sez prit 3
- Two cases of splenomegaly G A B ADDY Canadian Med Ass J 1928 xviii 165
- Splenectomy in cases of gunshot wounds of the spleen MORDARD Bull et mcm Soc de chirurgiens de Pa 1927 843
- Splenectomy for a wound of the spleen BUQUET Bull et mcm Soc de chirurgiens de Pa 1928 xv 6
- Splenectomy in pernicious anæmia and leukæmia J FATE Presse méd Pa 19 8 xc 1299 [474]
- Splenectomy for pernicious anæmia S BRILL Ann Surg 19 8 xc xii 314
- The result of splenectomy for purpura hæmorrhagica A W SPENCE Brit J Surg 19 8 xc 466 [475]
- Splenectomy in acute thrombocytopenic purpura hæmorrhagica M S LEBEN and L CLAMAN Arch Int Med 19 8 84
- Splenectomy in myeloid leukæmia P LEBEN and C ALBERTIN Presse méd Par 1928 xxxvi 49

Miscellaneous

- Diaphragmatic hernia S W HARRINGTON Arch Surg 19 8 xc 16 [475]
- Stenosis of diaphragmatic hernia A RABAUZIN Bull et mcm Soc de Chile 19 8 xc 277
- Traumatic hernia following diaphragm from indirect cause J DE VILTI Buletin de Chile 1927 v 95
- Abdominal manifestations in cardiovascular disease A L FARLEY J Med Soc N Jersey 1928 xc 90
- Chilodiasis M EUSLIE Proc Roy Soc Med Lond 19 8 xc 153
- An addendum to the acute abdomen F R FLINT Brit M J 19 8 xc 9
- The rate of death in infancy and childhood T H CROFT J South Carolina M A 19 8 xc 3
- Intestinal hæmorrhage in males T M W MILLAR Edinburgh M J 19 8 xc Med Chi Soc London [475]
- Diaphragm in abdominal affections A GUILLEMIN Bull et mcm Soc de Pa 1928 xcvi 97
- Intestinal tuberculosis L DELTZER Surg Gyn & Obst 19 8 xli 22
- Differential diagnosis of abdominal tumors by the roentgen method S BROWN Radiology 1928 x 48
- Retropertoneal fibroma A ALTHAGE and G DI JACOLA Bull Soc de obst et de gyn de Pa 1928 xvii 19
- A human abdominal endothelioma with extensive fat necrosis and hæmorrhage A JONA Riforma med 19 8 xli 21
- Radon in cancer of the abdomen and pelvic cavities I LEVIN J Am Med Ass 19 8 xc 273
- Two cases of ascites H JOACHIM Med Clin N Am 19 8 xc 8

GYNECOLOGY

Uterus

- Biochemical studies of human semen and its relation to the mucus of the cervix uteri R KURZROK and T G MILLER Jr Am J Obst & Gynec 1928 xi 36 [476]
- Pe uterine infection LÉVY SOLAL and LOUVEL Bull Soc de obst et de gyn de Pa 19 7 xvi 71
- The form changes in the human uterine gland during the menstrual cycle J L O'LEARY and C CULBERTSON Surg Gynec & Obst 1928 xli 227
- Rudimentary uterus with malformation of vagina G COTTE and J VACHEY Gynec et obst 1928 xvii 52
- A case of uterine malformation A STERE Gynec obst 192 21
- Uterine malformation in congenital scoliosis A J IVALSKA Semana méd 1927 xxxvi 1493
- A case of uterine inversion of four months duration abdominal hysterectomy R DUPONT Bull Soc de obst et de gyn de Pa 19 7 xvi 94
- Cervicovaginal ulceration in uterine prolapse C STRANO Rev méd Lat Am 1928 xiii 547
- A combined pessary for non-operative palliative correction of ectopic and retroversion H J STRONGIN Am J Obst & Gynec 1928 xv 20

Large ovarian fibroma or pedunculated fibroma of the uterus? E DEBASI Clin Obstet 19 8 xv 3

Removal of an endothelioma of the ovary with recurrence in the vagina thirteen years later and near the cervix twenty four years later W G BARNARD Proc Roy Soc Med Lond 1928 xxi 337

External Genitalia

Conenital absence of the vagina C H DAVIS and R S CROW Am J Obst & Gynec 19 8 xv 96

A foreign body in the vagina in a child of six and in half years LE CLERC Bull et mém Soc nat d cl 1928 liv 13

Some points of technique in colpo-perineography J GOSSET and J VILAR Rev franç de gyn & cl 1928 xviii 1

High lumen septum of the vagina with a painful perforation at its center operation recovery with subsequent pregnancy P LECHE Bull et mém Soc nat d cl 1928 liv 7

Pedunculated thrombus of the vagina I FAYAN and J COLO Bull Soc d obst et de gynéc de la 9 8 xv 11

Localized genital tuberculosis G MICHEL Bull Soc d obst et de gynéc de la 1928 xviii 9

Luminal pyocolpos in a baby of three months after delivery TIERNEY and J OMBREDA Bull et mém Soc nat d cl 1928 liv 140

Mycotic vulvovaginitis due to monilia albicans J BLAYE Gynec et obst 1928 xviii 40

Colpitis emphysematosa S HEAVY Am J Obst & Gynec 19 8 xv 256

Vesicovaginal fistula G FITZGEROY L I CAVALLO D G MADILL J S OUTH and others Brit M J 1928 1 308

Melanotic sarcoma of the vagina case report I W SUTTER and J J ECKH Surg Clin N Am 19 8 vii 3

Miscellaneous

The gynecology of the ancients A F ILL Am J Obst & Gynec 19 8 xv 262

Transactions of the Gynecological and Obstetrical Society of Copenhagen 19 4-925 and 19 5-1926 Am J Obst & Gynec Scand 1927 vi 428

A case of double anus vagina and uterus W A HINCLE J Am M Ass 1928 xv 455

Fracture of the pelvic field F ILL Am J Obst & Gynec 19 8 xv 66

Fracture of the pelvis C BECLERL Brux II s m I 9 8 viii 9

Fracture of the pelvis as an aid to diagnosis in the pelvis R A CANNON Brit J Radiol 1928 1 308

Fracture of the pelvis in the pelvis A HAVANT Bull Soc d obst et de gynéc de la 1928 xviii 9

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

Fracture of the pelvis during the menopause J BACHMANN Ri 1928 1 308

OBSTETRICS

Pregnancy and Its Complications

A suggested test for pregnancy A C SIDDALL J Am M Ass 1928 xv 380

The liver during pregnancy WALTER and DE WILLIS CONTR Bull Soc d obst et de gynéc de la 19 8 xv 11

The serological relations between the mother and fetus P BADIO Riv Ital di ginec 19 7 vi 60

Pregnancy of five months gone pressurized complications JOS Bull Soc d obst et de gynéc de la 19 8 xv 11

The Wassermann reaction in pregnancy labor and puerperium J L LANE N orth west Med 19 8 xviii 11

An analysis of the results of the Wassermann reaction obtained from 2000 consecutive pregnant women C H DOUGLAS J Obst & Gynec Brit Imp 19 8 xv 480

Diabetes in pregnancy O H PERRY Am J Obst & Gynec 19 8 xv 3

Hemorrhage in pregnancy and its complications during pregnancy and labor and puerperium J BACHMANN Ri 1928 1 308

Hemorrhage in pregnancy and its complications during pregnancy and labor and puerperium J BACHMANN Ri 1928 1 308

Hemorrhage in pregnancy and its complications during pregnancy and labor and puerperium J BACHMANN Ri 1928 1 308

Hemorrhage in pregnancy and its complications during pregnancy and labor and puerperium J BACHMANN Ri 1928 1 308

Hemorrhage in pregnancy and its complications during pregnancy and labor and puerperium J BACHMANN Ri 1928 1 308

Hemorrhage in pregnancy and its complications during pregnancy and labor and puerperium J BACHMANN Ri 1928 1 308

Hemorrhage in pregnancy and its complications during pregnancy and labor and puerperium J BACHMANN Ri 1928 1 308

Hemorrhage in pregnancy and its complications during pregnancy and labor and puerperium J BACHMANN Ri 1928 1 308

Tachyarrhythmia secondary to an injection of hypophyseal extract during labor. *WOLZ Bull Soc d obst et de gyn c de Par* 1928 xvii 35

A vulvovaginal thrombus supervening during the expulsive period. *RHENTER PIGEAUD and GUILLERMIN Bull Soc d obst et de gyn c de Par* 1928 xvii 72

Labor in a primipara of forty eight years' dystocia due to the soft parts. *PLAUCHU Bull Soc d obst et de gyn c de Par* 1928 xvii 61

Labor with complete occlusion of the external os. *E O CROFT and V M CLYDE Lancet* 1928 ccxv 31

Spontaneous rupture of the fundus of the uterus during labor with passage of the placenta into the abdomen. *M SPROZZI Clin ostet* 1927 xiv 608

Two cases of uterine rupture in the course of labor. *M RIVIERE and D GRAUD Bull Soc d obst et de gyn c de Par* 1928 xvi 671

Hypophyseal extract in the etiology of rupture of the uterus. *G SAY WIRTH Rev med d Uruguay* 1927 xxx 730

Uterine rupture in the course of breech extraction under spinal anesthesia in a case of infantile uterus. *P BALARD Bull Soc d obst et de gyn c de Par* 1928 xii 44

Delivery expedited by means of large median anterior and posterior incisions made in the cervix at the onset of dilatation because of fetal distress. *RASCOL Bull Soc d obst et de gyn c de Par* 1927 xvi 555 [485]

Three cases of median anterior and posterior incisions made in the cervix in the course of labor prolonged by rigidity of the cervix. *RASCOL Bull Soc d obst et de gyn c de Par* 1927 xvi 59 [485]

Separation of the symphysis pubis during labor. *W BRENN and H V WEIRAUK Am J Obst & Gynec* 1928 xix 187 [486]

Late symphysectomy for the second time with after coming head. *F P IASMAN and R PIETRANIELLO Bol Soc de obst y gynec de Buenos Aires* 1927 vi 492

The abdominal route in labor at term. *L BINA Clin ostet* 1927 xxi 675

Cesarean section. *J H PEAK Virginia M Month* 1928 li 696

Indications for the cesarean operation. *L RUZZI Rev de med y ciruj Caracas* 1927 x 214

Cesarean section—some modifications in the technique. *G DE CORREY Am J Surg* 1928 iv 30

A case of the Fortes operation. *O JUERGENS Rev argent de obst y gynec* 1927 xi 310

Five new cases of subcutaneous externalization of the uterine incision after late cesarean section. *G OUIF Bull Soc d obst et de gyn c de Pa* 1927 xvi 628 [486]

Some cases of low transperitoneal cesarean section. *H PATCOY Bull Soc d obst et de gyn c de Par* 1928 xvii 48

Transperitoneal segmental cesarean section. *S BLASTA MATE An Fac de med y farmacia* 1927 i 20

Low cesarean section for fibroma. *V P RAMOS Bull Soc d obst et de gyn c de Par* 1928 xvi 10

Cesarean section for fibroma followed by hysterectomy. *RIVIERE GUYOT and VILLARD Bull Soc d obst et de gyn c de Par* 1928 xvii 46

Labor by the natural route following cesarean section and repeated cesarean section. *A QUARANTOTTO Clin ostet* 1928 xxx 29

Vaginal cesarean section. *A J BENGOLA Bull Soc d obst et de gyn c de Par* 1928 xvii 117

The delivery of the adherent placenta: report of three cases in which the Mojon Gabaston method was employed. *J JARCHO Surg Gynec & Obst* 1928 xlii 26

A new umbilical cord clamp. *J C HIRST II Am J Obst & Gynec* 1928 xix 252

Rapid vaginal tamponade. *R CARNELLI Policl n Rome* 1927 xiv sez prat 1853

Six cases of hemorrhage following delivery which were treated by clamps left in place. *GARIPUY Bull Soc d obst et de gyn c de Par* 1927 xvi 562 [486]

The care and repair of the cervix and perineum in confinement cases. *R P KELLY Virginia M Month* 1928 liv 713

Puerperium and Its Complications

The influence of supplementary feeding of carbohydrate upon lactation. *I S KATZNER J E TRIRSCH and L G CRAWF Am J Obst & Gynec* 1928 xi 172

Asypl on breast pump. *H S FIST Californ & West Med* 1928 xviii 2

The influence of the involut on of the uterus and of the mammary function on the basal metabolism of the puerperal woman. *A CUSO R Ital d gynec* 1927 vi 714

Malignant psychoses related to childbirth. *G ZILLBORG Am J Obst & Gynec* 1928 xv 145 [487]

Puerperal neuritis. *C J DUVERGES Semana m d* 1928 xxxv 6

Treatment by the application of leeches in a case of puerperal phlebotomy of embolic origin. *VIDAL Bull Soc d obst et de gyn c de Par* 1928 xvii 36

A case of puerperal pulmonary abscess due to Fraenkel's diplococci. *L RIZ Clin ostet* 1928 xvi 15

The treatment of puerperal endometritis in the country. *P LAVEZ Semana m d* 1927 xxxiv 1701

The treatment of puerperal infection with aseptic pus. *DEBRIGNE SAUPEAU and LAENNEC Bull Soc d obst et de gyn c de Par* 1927 xvi 770

Calcium therapy in septic conditions. *SERDJALOFF Clin colo e* 1927 xvi 705

Serotherapy in the treatment of puerperal septicaemia. *L TOL Re m d d Uruguay* 1927 xxi 752

A case of pneumococcal peritonitis during the puerperium with erythema. *H F SEYMOUR J Obst & Gynec Brit Emp* 1927 xvi 793 [487]

The surgical treatment of puerperal processes. *W LATZIO Rev argent de obst y gynec* 1927 xi 187 [487]

Newborn

Certain aspects of the after care of the newly born. *L I DIBUYS South M J* 1928 xx 152

Infantile mortality and the protection of the young infant. *G ARÁOZ ALFARO Semana m d* 1927 xxxiv 1781

Infant mortality in South Carolina. *W E SIMPSON J South Carolina M Ass* 1928 xxii 27

The infantile mortality between the ages of one and thirty days in Kosario in the period from 1900 to 1925. *P P PNEYER GARCIA Semana m d* 1927 xiv 1586

Conatal malformations of the cephalic region. *P RIZZATTI Riv Ital d gynec* 1927 vi 617

An experimental investigation into the effects of a phytan on the brain with especial reference to asphyxia neonatorum. *F R FORD Bull Johns Hopkins Hop* 1928 li 70

The prevention and treatment of asphyxia in the newborn. *Y HENDERSON J Am M Ass* 1928 xc 583

Hemorrhagic disease of the newborn. *J I COPPOLINO Atlantic M J* 1928 xxxi 300

Intracranial hemorrhage of the newborn: its relation to the hemorrhagic diathesis. *B I BURPEE Boston M & S J* 1928 ccxvi 1449

Presentation of child en who had meningeal hemorrhage at the time of birth. *M RIVIERE Bull Soc d obst et de gyn c de Par* 1927 xvi 649 [488]

- Nephralgia of unusual origin J SALLERAS Rev de especialidades 1927 II 1012
- The nature of the primary renal lesion produced by lead S PRYCE Ann Int Med 1918 1 577
- The diagnosis (laboratory and clinical) of diseases of the kidney I C PINKER Virginia M Month 1918 II 689
- Nephrosis of thyroid origin J P DAVIDSON Canadian M Ass J 1928 XVIII 161
- Chronic irritation of the renal pelvis and renal function G ANTICHIARICO PETRUZZELLI Policlin Rome 1918 XXXI sez chir I
- Polycystic kidney disease P F CUMMING J Urol 1928 IX 149 [491]
- Hydatid cysts of the kidney A VON DER BECKE A A Di Gio and S RRY Rev de especialidades 1927 II 1019
- Pyelitis of infancy and early childhood T M MAPA Kentucky M J 1928 XXVI 63
- Pyelonephritis due to the colon bacillus I RAYMOND Presse med Iar 1918 XXXVI 59
- Pyelonephritic abscess C I GIBSON Ann Su 1918 LX VII 301
- Some data concerning the clinical course of renal tuberculosis G J THOMAS and T I I INSELLA J Urol 1918 XIX 95 [491]
- Considerations on a case of conjugal renal tuberculosis J SALLERAS Rev de especialidades 1927 II 1016
- Renal tuberculosis in the Argentine J SALLERAS and A VON DER BECKE Rev Assoc med argent 1927 II 103
- Three cases of calculus of the ureter A TUCCELLI Arch ital di urol 1927 IV 180
- Double renal lithiasis left pyelotomy right nephrectomy recovery J SALLERAS Rev de especialidades 1927 II 998
- Pyelography in the diagnosis of renal tumors C VILAR and A VON DER BECKE Rev de especialidades 1918 II 994
- Malignant tumors of the kidney in childhood A FISCHER Arch ital di urol 1927 IV 181 [492]
- Lipillary epithelioma of the mucous membrane of the renal pelvis A MONTENAPOLI A OLIVIERA and C LUCIETI Rev de especialidades 1917 II 1049
- Medical aspects of diseases of the kidneys I S SMITH Virginia M Month 1928 LV 68
- Surgical aspects of diseases of the kidney J M I BRYSON Virginia M Month 1918 LV 68
- Secondary nephrectomy A H CROSSBIE J Urol 1918 LXIX 18 [492]
- The result of ureteral catheterization in various cases of ureteral anuria J SALLERAS Rev de especialidades 1917 II 184
- Stricture of the ureter associated with lue S J ROBERTS Atlantic M J 1928 XXV 31
- Bilateral duplication of the ureters with ectopic orifice M ASCOLI Arch ital di urol 1917 II 133
- Observations on the rate of ureteral regeneration preliminary report S I KRAMER Sug Gynec & Obst 1928 XLVI 216 [492]
- Unusual ureteral tumors observed in the course of cystoscopy A TAKAHASHI J durol med et chir 1917 IX 435
- Primary carcinoma of the ureter I VOLANTE Arch ital di urol 1927 IV 105
- The pathogenesis and treatment of certain cysts of MARON J durol med et chir 1928 XV 5
- An experimental study of urinary retention II SHICE MARON J durol med et chir 1918 XXV 16
- Vesical retention not of prostatic origin A F ORTIZ and J J CAZZOLO Rev med Lat Am 1927 XIII 436
- Sudden retention of urine due to a lydatid cyst in the pouch of Douglas R SPURR Rev de especialidades 1918 II 970
- Suprapubic cystostomy for acute febrile retention of a urinary infiltration C PAZZABONI Arch ital di urol 1927 IV 171
- The treatment of painful cystitis in the stage of cystal lysis open at once upon the pelvic sympathetic and in particular by resection of the pelvic sacral nerve C VIANNA Arch ital di urol 1917 XXV 9
- Interstices in two cases of interstitial cystitis C VIANNA Arch ital di urol 1918 XXV 140
- Catheter cystitis—A monomer II CANOT J Indiana State M Ass 1918 8 [493]
- A cystometric study of the pharmacology of the bladder with additional data regarding the physiology of the bladder D K R and R D DAVIS Surg Gynec & Obst 1918 LXI 1
- A case of eccideticum P O B L and S J CHIN Tsin Seman med 1918 XXVII 7
- Diagnosis of the tumor in the bladder and in the tuberculo J K ORMAN J Urol 1918 XXV 109 [493]
- Vesical lithiasis double infection I B C LEMAN B M J 1918 XXVII 77
- Osteomyelitis of the hip with callosities of the hip J M CHILMIST and J CRISSEL J durol med et chir 1917 XXVI 525
- Anatomical study of the ureteral foramen in the bladder A TAKAHASHI J durol med et chir 1918 XXV 43
- A foreign body in the bladder A F ORTIZ and J M PETTY Rev de especialidades 1917 II 1077
- A foreign body in the bladder II D C I FRI Brit M J 1918 307
- The formation of vesical calculi B H HARRIS and T B MAGATH J Am M Ass 1918 C 66 [493]
- Consideration on a vesical calculus of unusual form which effectively prevents lithotomy J SALLERAS and I J CUSSELLAS Rev de especialidades 1918 II 998
- Bladder calculus in the male during infancy E SCOTT Brit M J 1928 217
- An unusually large calculus in a vesical calculus G M McALLUM and G H I WELLS J M S U St M Ass 1918 67
- A contribution to the study of cystography BILLVET D MENCHER Arch de med et chir 1918 C 87
- Dysurias due to change in the neck of the bladder MARON J durol med et chir 1918 XXV 16
- The cause of renal calculus in the obstructive lesion of the urethra and bladder neck II A R KLEINZMAN J Urol 1928 XIX 199 [493]
- The roentgenological diagnosis of tumors of the bladder J G GOTTLEB and F J STROKOFF J durol med et chir 1927 XIV 411
- The roentgenographic diagnosis of malignant tumors of the bladder MAZA Arch de med et chir 1928 L 17
- Syphilitic gumma of the bladder I I CAULFIELD and M CHAVESS J durol med et chir 1918 XXV 63
- Primary lymphosarcoma of the bladder and the pre-natal within it of iodine elements I MARON Arch ital di urol 1927 IV 3

Bladder Urethra and Penis

Vir in the bladder II COHEN Med J & Rec 1928 CXXXII 124

Traumatic rupture of the urinary bladder in children L B GREENE Ann Surg 1918 LXXXII 307 [492]

The intradermal reaction in venereal ulcer Riforma med 19 7 xlii 1170
 A case of vesico anorectal syphilis M PAPA J d urol med et chir 1928 xvi 61
 Deviation of the complement in gonorrhoeal infections G B PODESTÀ Riforma med 1928 xlii 51
 Acridine therapy in gonorrhoea P BUZEU J d urol med et chir 1927 xxiv 401

Some considerations relative to the abortive treatment of gonorrhoea with argrol J TISSOT and F THIÉVENARD J d urol med et chir 1927 xiv 39
 A new method of treating chronic gonorrhoea in the male V URDAPILLETA Rev de especialidade 1927 ii 1040
 Autohemotherapy in dermovenereology GARCIA CASAL Arch de med ciru y especial 19 7 xlii 787

SURGERY OF THE BONES, JOINTS, MUSCLES, TENDONS

Conditions of the Bones Joints Muscles Tendons Etc

The application of pathology and therapeutics to the laws of ossification R LERICHE Bruxelles méd 19 8 viii 439

The demonstration of epiphyseal lines H E FRENCH J Lancet 19 8 xlii 56

The importance of radio-raphy in bone and joint lesions C A PLUME J Med Soc N Jersey 1928 xiv 97

Isolated bone contusions G TOCCU Chir d organi di movimento 1928 vii 41

Bone regeneration D PRAT J de chir 19 7 xix 630

A radiological study of the bone changes in renal infantilism C G FALL Proc Roy Soc Med Lond 19 8 xxi 717 Brit J Radiol 1928 i 49

The care of a patient having bone and joint tuberculosis B GOLDBERG Illinois M J 19 8 lii 40

Anatomical considerations on some types of bone sclerosis C RUTPE Ann anat path 1928 v 41

Osteochondritis A INOSTROZA Bol Soc de ciru de Chile 1927 v 89

Desiccating osteochondritis PAITRE and DU BOURGUET Rev de chir Par 19 7 vi 626

Generalized fibrocytic osteitis MORICHAUX BEAUCHANT PEROCHON and FAGUT Bull et mém Soc m d d hôp de Par 1928 xliii 1757

The differentiation of osteitis deformans and osteoplastic metastatic carcinoma C G SUTHERLAND Radiology 1928 x 150 [498]

Traumatism and osteosarcoma BRESSOT Bull et mém Soc d chirurgiens de Par 1928 xv 33

Generalized metastatic carcinoma of bone secondary to cancer of the prostate and of the breast B ROCCIA Polichin Rome 19 8 xxxv sez chir 24

Ewing's endothelioma M S REUBEN and A R PESKIN Arch Pediat 1928 xlii 116

A clinical lecture on the end results in sarcoma of the long bones W B COLEY Am J Surg 19 8 iv 223

Contusions and sprains I COHEN South M J 19 8 xxi 97

Experimental studies on paraosteopathy of paralyzed limbs following trauma of the spina medulla L DOMINICI Polichin Rome 1927 xxxv sez chir 557

Chronic muscular rheumatism and panniculitis R STOCKMAN Brit M J 1928 i 203

The roentgen ray diagnosis of infantile scurvy R S BROMER Am J Roentgenol 1928 ix 11

Hemophilic arthropathies C H VISEGGI Rev de especialidades 1927 ii 1105

A clinical study of two cases of gonorrhoeal and tuberculous arthritis A EPSTEIN Lyon chir 1928 xv 57

Two cases of gonorrhoeal arthritis treated by serum and antgonococcus vaccine MARTIN CAFFORT GISCARD and BERNE LAGARDE J d urol med et chir 19 8 x 69

Chronic arthritis R L CECIL N York State J M 1928 xxviii 17

The etiology of chronic arthritis Brit M J 1928 i 309

Orthopedic consideration of chronic arthritides J D TRAWICK Kentucky M J 1928 xxi 36

Multiple arthritis with enlargement of the liver and spleen C F HARRIS and H THURFIELD Proc Roy Soc Med Lond 19 8 xvi 567

Rupture of the coracoclavicular ligaments A W HOGG Canadian M Ass J 19 8 xiii 187

Fibrocystic disease of the humerus E O'FLYNN and E A CROOK Proc Roy Soc Med Lond 19 8 xv 563

Congenital radio-ulnar synostosis J GROMAN Med J & Rec 19 8 cxii 186 [498]

Supernumerary thumbs R H MITCHELL Brit M J 19 8 i 308

Benign giant cell tumor of the metacarpal bone M FANON Ann Fac de med y farmacia 1927 i 27

Supernumerary ribs and transverse hypertrophy of the cervical vertebrae G PACOTTO Arch tal di chir 19 8 x 373

Injuries to the pine M L KLINEFELTER J Missouri State M Ass 1928 xx 0

Discussion on spinal injuries G JEFFERSON C RINDOCH B SHIRES G F STEBBING and others Proc Roy Soc Med Lond 1928 xvi 623

Cervical ribs M AGRIFOGLIO Arch tal di chir 19 8 x 431

A case of vertebra plana (Calvé) H J PANNER Acta radiol 1927 vii 547

Scoliosis F R OBER and R K GHORMLEY J Am M Ass 1928 xc 36

A case of spondylolisthesis J P MARTIN Proc Roy Soc Med Lond 19 8 xvi 556

Chronic spondylitis deformans R P O'BANON Texas State J M 1928 xxiii 677

The problem of drainage in spinal tuberculosis A STEINDLER J Kansas M Soc 19 8 cxii 37

A case of chordoma A CAMAUER C V LAMBROS and G A MÓSTOLA Rev oto-neuro oftalmol y de ciru neural 19 7 i 300

A case of poliomyelitis affecting the pteuiss medius muscle W A COCHRANE Edinbur M J 1928 xxv Med Chir Soc Edinburgh 1928 36

Coalgia of rapid evolution and tuberculous pericarditis CHENUT and COSTEDAT J de méd de Bordeaux 19 8 cv 23

Dyschondroplasias of the hip L CHIODINI Rev mc l d Rosario 1927 vii 645

Osteochondritis deformans P M KEATING Texas State J M 1928 xxiii 674

Deforming infantile osteochondritis and deformant juvenile osteoarthritis are they different phases of a single disease G NISIO Polichin Rome 1927 xxvi sez chir 600

The value of surgical intervention upon the tuberculous and the importance of the selected anesthetic W R ABROTT *Anes and Anal* 1928 vii 34

Preliminary medication in general anesthesia with special reference to the margin of safety and postoperative lesions of the lung J T GWATHNEY and C W HOOPER *Arch Surg* 1928 xvi 416 [508]

The relation of carbon dioxide during inhalation anesthesia I F SISE *Surg Clin N Am* 9 8 viii or

The effect of inhalation anesthesia upon intracranial pressure K W NEV ANES and Anal 1928 vii 8

Intratracheal inhalation anesthesia the method of election for operations on the head and neck I J FLUGG *Arch Otolaryngol* 1928 vii 56

Other convulsions S R WILSON *Anes and Anal* 1928 vii 4

Sundry remarks on ethylene oxygen anesthesia A B LUCKHARDT *Anes and Anal* 1928 vii 1

Spinal anesthesia C B SCHULTZ *Surg Gynec & Obst* 19 8 xvi 81

The present position of spinal analgesia C HUGHES *Pr c Roy Soc Med Lond* 9 7 xvi 189 [509]

The use of ephedrin in spinal anesthesia L F SISE *Surg Clin N Am* 1928 viii 19

Ictal narcosis with avertin F P TINOZZI *Ann* 11 dicbr 19 7 vi 125

Brachial plexus nerve block E M HANRAHAN, Jr *J Am M A* 9 8 xc 529 [509]

Local anesthesia in major surgery J L DECONCEY *Am J Surg* 9 8 i 155

Conclusions from over 800 major operations under local anesthesia in I F LUKES *Anes & Anal* 9 27 vii 45

The allied synergism of magnesium sulphate and morphine H BRIDGMAN *Am J Obst & Gynec* 19 8 [509]

Surgical Instruments and Apparatus

The utilization of sharp instrument M H P ST *Am J Ophth* 9 4 vi 5 [509]

The less strenuous method of I I H WEL J *Am M A* 19 8 x 530

PHYSICOCHEMICAL METHODS IN SURGERY

Röntgenology

Röntgen ray diagnosis L JACHES *J Am M Ass* 1928 xc 541 612

The flesh contour in radiograms A P BERTWISTLE *Brit J Radiol* 1928 i 65

The comparative efficiency of sources of radiation used in therapy W T BOVIE *Boston M & S J* 9 28 c c ii 1509

Cutaneous röntgen ray and radium therapy G M MACKIE *J Am M Ass* 1928 xc 28

The radiosensitivity of malignant tissue and its biological significance M J SITTENFIELD *Am J Roentgenol* 19 8 xix 50

Radium

Radium therapy in certain metabolic disorders M HEINER and M ADLER *Med J & Keo* 1928 cxviii 192

Inoperable sarcomata treated with radium R WARD *Brit M J* 19 8 i 13

Radium in adequate dosage in the treatment of cancer D QUICK *J Am M Ass* 1927 l xiv 935

A superficial ulcer due to radium necrosis G M ANTONIOLI *Policlin* Rome 19 8 x xv sez prat 50

Miscellaneous

The value of physical therapy in the clinic J C FLESON *Am J Surg* 19 8 vi 98

Hysterothymia in medicine F MARGO *J Okla M State M Ass* 9 28 i 30

The effect of carbon arc irradiation on infants I H BAKENBLOK and J M LEWIS *J Am M Ass* 19 8 c 504

Ultra violet light therapy Lancet 19 8 cc iv 192

Physical and chemical principles in heliotherapy H A MEASURING DEVICE FOR ULTRAVIOLET RADIATION I VILNITZ and W S HUXFORD *Am J Physiol* 19 8 144

Some therapeutic indications for ultraviolet radiation V H CORBOVA *Semana med* 19 8 xxxv 4

The use and abuse of ultraviolet radiation in therapy B H M *J* 1928 i 9

Method of measuring ultraviolet radiation W W COBLENTZ *Padiol* 9 8 x 6

The treatment of obesity by ultra violet rays C L WILLIAMSON and C H BROOMFIELD *Lancet* 19 8 cc iv 23

The scientific basis of phototherapy H D GRIFFITH and J S TAYLOR *Radiology* 19 8 x 93

Important considerations of electrosurgery G E WARD *Boston M & S J* 19 8 cxc ii 1502

MISCELLANEOUS

Clinical Entities—General Physiological Conditions

Indelible ink pencil injuries H MILCH *Ann Surg* 19 8 lxxviii 95 [510]

Protein shock in infectious icterus of the catarrhal type E LOCKMAN *Presse méd* Paris 1928 xxxvi 101

A criticism of current views of shock and collapse Z COPE *Proc Roy Soc Med Lond* 1928 xxi 599

Diabetic gangrene F HEWIT *Lindburgh M J* 1928 xxxv *Med Chir Soc Edinburgh* 29

Gas gangrene in civil practice M WEDNROB and C I MISSELOFF *Am J M Sc* 1927 clxiv 801 [510]

Formalin injections in gangrene of the leg recovery J A NOBLE *Brit M J* 19 8 i 16

Subacute in anal lymph glandulomatosis a report of twenty seven cases C L WILMOTH *So th M J* 1928 xv ro8 [511]

Innervation and tumor growth H OERTLL *Canadian M Ass J* 1928 viii 13

Two unusual tumors of the thigh M DENIKER *Bull et m m Soc nat de chir* 19 7 lvi 1434

SUBJECT INDEX

- ABDOMEN** Acute abdominal distasters 108 simulation of gall bladder disease by intercostal neuralgia of wall of 192 284 acute conditions of complicated by ileus or septic invasion of peritoneum 195 prevention of postoperative peritonitis and adhesions in 26 abdominal aneurism 31 pain in associated with throat infection in children and appendicitis 387 relation of surgical pathology of right lower quadrant of to arthritis 411 hemorrhage of in males 47
- Abortion** Therapeutic with special reference to method of induction 204 indications for interruption of pregnancy 206 482 induction of in syphilis 97
- Abscesses** Etiology and clinical aspects of perinephritic 209 See also names of organs
- Accommodation** Changes in fovea during 448
- Achylia** Relation of chronic gastritis to 101
- Acid** Burns of eye due to 357
- Actinomycosis** Deep of neck and mediastinum 362 of duodenum and jejunum 385 treatment of mycetoma resembling 511
- Actinotherapy** Fundamentals and clinical aspects of light treatment with especial relation to tuberculosis 8 light treatment at London Hospital 315
- Adolescence** Developmental changes during 32
- Adrenalectomy** See suprarenalectomy
- Adrenalin** in treatment of contraction ring dystocia 66
- Alcohol** Influence of on ovarian activity prenatal mortality and sex ratio in mice 403
- Alkali** Burns of eye due to 357 cure of gastric and duodenal ulcer with 46
- Amenorrhœa** Repeated pregnancy after induction of by roentgen irradiation of ovaries 216
- Ammotic fluid** Quantitative variability of 116
- Amyl nitrite** as antispasmodic in roentgen examination of gastro intestinal tract 380
- Anæmia** Splenectomy in pernicious 474
- Anæsthesia** Spinal in intestinal occlusion 19 22 in urological surgery 46 nitrous oxide in Germany 57 permanent nerve disturbances resulting from spinal 229 evaluation of method in obstetrical 207 nitrous oxide in obstetrics 297 rectal administration of ether and oil and morphine magnesium sulphate and ether in surgery and obstetrics 3 3 in thyroid surgery 41 morphine and meprobamate sulphate infiltrations and colonic ether instillations in labor 484 preliminary medication in general with special reference to margin of safety and postoperative lesions of lung 508 position of spinal 509
- Analgesia** Evaluation of method in obstetrical 97
- Aneurism** Of external iliac artery with rapid evolution treated by extirpation of sac after high ligation of artery 52 abdominal 312 arteriovenous 500 501 treatment of 501 502
- Angina pectoris** Microscopic study of superior cervical sympathetic ganglion in 271
- Angiod streaks** In fundus oculi 448 of retina 448
- Ankle** Treatment of fractures of by Delbet ambulatory plaster splint 499
- Antiseptics** Value of in modern ophthalmic surgery 61
- Antrum of Highmore** Malignant neoplasms of 71 nasal surgical treatment of chronic maxillary sinusitis 361 varying symptomatology of chronic maxillary sinusitis depending on pathology present 263
- Aorta** Aneurism of abdominal 312 rupture of during labor 485
- Appendectomy** Empyema in auto amputated appendices after 106
- Appendicitis** Gynecological considerations in chronic 283 etiology and sequelæ of chronic 283 diagnostic difficulties in chronic 283 symptomatology and diagnosis of chronic 283 chronic pseudo due to intercostal neuralgia 84 postoperative complications of suppurative 84 abdominal pain of throat infections in children and 387 strictly mechanical obstruction of intestine without abscess or peritonitis in course of intestinal attack of 38 acute in aged 472
- Appendix** Empyema in auto amputated after appendectomy 66 pseudomyoma peritonei associated with ruptured ovarian cyst and disease of 379 relative frequency of various positions of 472
- Arachnoiditis** Unilateral pachymeningitis and 454
- Arteries** Arterial hypertension and retinal changes 98 discordance between local hyperthermia following sympathetic neurotomies and circulation in 137 diagnosis and treatment of disease of extremities 311 immediate effect of ligation of 505 saline wheal test as measure of blood supply in disturbances of of extremities 505
- Artery** Bilateral papillary vascular loop of retinal 4 arterial spasm and occlusion of branches of central of retina 5 aneurism of external iliac with rapid evolution treated by extirpation of sac after high ligation of 5 ligation of femoral below origin of profunda femoris in obliterative endarteritis of leg 55 injections of substances opaque to roentgen ray into carotid 136 physiological and histological study of circulatory conditions in left lower extremity in case in which femoral was ligated in 180 37 embolism of retinal 175 effect of sympathectomy of hepatic on wound healing and on biligenic and glycolytic function of liver 287 successful Trendelenburg operation for embolism of pulmonary 504
- Arthritis** Rheumatoid a deficiency of case 47 relation of surgical pathology of right lower quadrant to 411 gonorrheal 411 second type in shoulder 41
- Arthrodesis** 305 498 indications technique and results of sacro iliac 417
- Aspergillus** Granuloma due to in adnexal orbit 174
- Astrakus** Treatment of fractures of 310
- Atelectasis** Primary carcinoma of lung showing and pleural effusion 12 postoperative pulmonary 457
- Atlas** Simple rotary dislocation of 221
- Auditory nerve** Herpes zoster ophthalmicus 15 deaf mutism due to bilateral lesions of auditory sensory areas 175
- Axilla** Connections between pleura and lymphatic glands of 36
- Xanthemia** in surgery 506
- BACK** Low sprain of 30
- Backache** due to seminal vesiculitis and prostatitis 45
- Basedow's disease** See Coiter
- Bile duct** Importance to surgery of cystic duct is of common re-evaluated by tetraiodophenolphthalein test in patient who had been subjected to cholecystectomy 194 effects of obstructive lesions of gall bladder 390 congenital cystic dilatation of common 474

- Cancer Colloidal lead in treatment of 60 14 3 6 nature of 147 studies in incidence and inheritability of spontaneous tumors in mice 147 changes in histological structure of following section of its sensory nerve supply and influence of this neurotomy on course of various pathological processes 15 value of intravenous injections of dextrose during radiation treatment of malignant disease 230 importance of vascular permeability in therapeutic use of roentgen rays and radium in malignant disease 230 See also names of organs
- Carbon dioxide Control of hiccup by inhalations of 196 Carbuncles Treatment of 145
- Carcinoma See Cancer and names of organs
- Cardiospasm 186 findings with barium bougie in 3
- Carotid artery Injection of substances opaque to roentgen rays into 136
- Cataract Extraction of 4 plea for variety in usual treatment of congenital 260 loss of vitreous in extraction of 260 comparative results obtained by combined simple and Knapp-Torok methods of traction of 60 nonoperative treatment of 38 lens antigen treatment of 335 and postoperative tetanus 44
- Catgut As source of fatal operative wound infection 114 pathogenic anaerobe of gas gangrene group not hitherto described 313
- Catheter Cystitis not due to 493
- Cerebellum Roentgenological visualization of 365
- Cerebrospinal fluid Comparative chemical studies of cerebrospinal fluids blood and 157
- Chest Intrathoracic tumors 15 X-rays in diagnosis of intrathoracic growths 18 parasternal invasion of in breast cancer and its suppression by use of radium tubes as operative precaution 272 value of lateral exposure in roentgen examination of 49
- Child Separation of mother and child means of prevention 488
- Choked disk S. Papilliolema
- Cholan citi following cholecystenterostomy 302
- Cholecystectomy Common duct stasis caused by tetraiodophenolphthalein test in patient who had been subjected to 194 without drainage 88
- Cholecystenterostomy Cholan citi following 39
- Cholecystitis Importance of in production of symptoms of diverticula and duplication of duodenum masked recurrent without stones 193 external function of pancreas in and gastroduodenal ulcer by simple and fractional examination of duodenal juice 194 bacteriology of 391
- Cholecystoduodenostomy Experimental study of cholecystoenterostomy and 28 side tracking operations for bile duct obstruction 107
- Cholecystogastrostomy Experimental study of cholecystoduodenostomy and 28 side tracking operations for bile duct obstruction 107 in acute hepatic degeneration 389
- Cholecystography New iodine compound for 7 toxic effects of dyes used for 391 concentration of media for bag gall bladder 391
- Choledochenterostomy Side tracking operations for bile duct obstruction 107
- Choledochus See Bile duct
- Cholelithiasis See Gall stones
- Chordotomy Technique of 366
- Chromoma of forearm 316
- Circulation Discordance between local hyperthermia and arterial foliovin sympathetic neurotomy 137 colateral in blood vessel diseases of lower extremities 225 fate of foreign bodies in venous system direct observation of 136
- Clonus See Tetanus
- Club foot Elastic treatment of 46
- Club hand Congenital ulnopalmar with subluxation of fingers 130
- Cold Tetanic shock form in hemolytic icterus 195
- Colicotomy Ileocolic treatment of constipation or 282
- Colitis Treatment of chronic ulcerative 386 bacterial etiology of 38 chronic ulcerative 47
- Colon Symptomatic and clinical diagnosis of cancer of large colon 13 interpretation of small bowel segments between localization of 24 result after fourteen years of ileohemicolectomy for fecal stasis 105 clinical significance of polyps of and their clinical and pathological anatomical relationship to carcinoma of pelvis and rectum 86 proctologic relation of surgical pathology of right colon to quadrants of the abdomen 41 gastral junction lesions and fistulas of stomach 31 junction and 464 vasculature of tunics of left part 14
- Colotomy Incision of 22
- Conjunctiva Conjunctival 74
- Constipation Result of right hemicolectomy for fecal stasis 105 value of x-ray and enema 105 place of colotomy in treatment of 142
- Cranial nerves Lesion of cranial nerves and pathology of central nervous system 4
- Curettage Action of operative material in tracheobronchial tract 31
- Cranial Palate of mouth of malocclusion 175 synovial membrane of unilateral paralysis of all 9
- Cyctic duct S. Bile duct
- Cytitis Catheterism nom 493
- Cystography Adhesions and dilatation of placules in male 10
- Cysts Intestinal and atrium of dentulous lymphatic origin of certain cystic formations in pelvis follicular total castration of female 115 colossal hydatid 511 See also names of organs
- Dilatation MUTISM due to bilateral lesion of auditory sensory areas 75
- Definite Relation of vitamin deficiency to progressive middle ear otolaryngologic phase of focal infection 6 nutritional investigation of otosclerosis 361
- Deuterostomenterostomy 467
- Dentigerous cyst Pathology and new treatment of 2
- Dextrose Value of intravenous injections of during radiation treatment of malignant disease 230 prevention of peritoneal adhesions and encapsulation by hypertonic solution of 275
- Diabetes And pancreatic 399 pancreatic cyst associated with 44
- Diaphragm Thoracopentostomy operation for hernia of 31 inflammatory disease of 196 hernia of 475
- Disarthrosis Articular mechanism of 411
- Distriphry Value of in treatment of roentgen irradiation 58 use of uric acid for malignant tumors in anterior aspect of 63 application of heat light in iridocyclitic 38 surgical in breast cancer 371 in treatment of fibrosarcoma and malignant lesion of uterine cervix 393

- servations on intramural and isthmus portion of with special reference to so called isthmus palsy 306
clinical x-ray hipiodol study and insufflation of in fifty cases of occlusion of 306 study of fertility by peruterine insufflation and hysteroscopy 4 b
- Fascia Grafts of dead preserved 8
- Femoral artery Ligation of below origin of profunda femoris in treatment of obliterative endarteritis of leg 55 physiological and histological study of circulatory conditions in left lower extremity in case in which was ligated in 18 137
- Femur Fractures of upper end of 134 treatment of central ligation of 134 cent enograms of fractures of 2 2 fibrocystic disease of 413 fracture of shaft of 418 isolated fracture of lesser trochanter 40 late end results in ununited fracture of neck of treated by bone peg or recon traction operation 41 treatment of fractures of neck of femur 41
- Fetus Clinical signs of distress of during labor 60
- Fingers Importance of junction tendinum in lesion of extensor tendons of 48 congenital ulnar palm lull hand with subluxation of 130 isolated plantar claw vanthomatic tumors of and hand 18
- Fistula Of small and large intestine 18 u h s and umbilical 31 transplantation of ureter into bladder 11 obtain phincteric urinary control in escova n l 113 duodenal followup nephrectomy 123 uterovaginal and escova n l combined 9 toxemia of duodenal 386 gastrojejunocolic and gastrojejunocolic ulcer 464
- Flat foot Relation of rickets of lower extremities and static 415
- Forearm Open reduction of fractures of 133 chromom of 316
- Fovea Chancre in during accommodation 445
- Fractures New device for reduction of 18 str n th of certain material used for extension 4 a c e of as indicated by roentgen examination 308 experimental study of internal callus 309 operative treatment of 418 influence of war surgery on treatment of in Great Britain 418 traction and suspension 418 frequency and duration of osteitic processes after osteosynthesis in 49 mechanical action of penotum in fresh 419 technique of use of grafts in non union of 420 damages to bones and reputations 499 See also names of bones
- Freezing Periantral sympathectomy in 45
- Frontal sinus Fracture of anterior wall of 1 meningitis of nasal cavity 6 empyema of 6 children 7
- Funiculi Relation of to hydrocele in Egypt 44
- Furuncles Treatment of 345
- GALL bladder Experimental study of emptying of 6 pathology of 27 cholesterol of 8 spontaneous rupture of into duodenum 28 relation of to disease of by into costal neuralgia of abdominal wall 29 types of infection of 192 clinical behavior of normal and diseased 88 diseases of liver and bile passages 388 pre valent denial of functions long attributed to 390 concentration of cholecystographic media and bilirubin by 39 and its infections 43 gastro-intestinal symptoms masking disease of 473
- Gall stones Final examination in surgically treated cases of biliary lithiasis 194
- Gangrene Of extremities 40 26 311 316 use of anti gangrene serum in treatment of appendicitis and pulmonary and gas 5 8 gas in clinical practice 510
- Ganglion Ganglion 1 experimental anatomical pathological basis of surgical treatment of neuralgia of trifacial nerve and change in retro-auricular neurotomy 180
- Gastrectomy Choice of operations for peptic ulcer 10 complete for chronic ulcer with observations on effect of loss of stomach on physiology of digestion in man 103 partial versus gastroenterotomy in surgical treatment of gastroduodenal ulcers 187 partial 187 changes in chemistry of content of stomach following gastric operations 188 principles of gastric surgery 35 successful resection of upper half of stomach 38 peptic ulcer after extension resection of 463 fatal dysenteric enteritis secondary to gastroenterostomy or extension gastric resection for ulcer of stomach 46 acidity of stomach following gastric resections 468 ileus of afferent loop after resection of stomach for duodenal ulcer and mesoduodenum 40
- Gastritis Chronic in relation to achylia and ulcer 101
- Gastroenterostomy Status of in gastric surgery 17 partial strictomy versus for gastroduodenal ulcer 8 secondary resections of stomach in disease conditions after 185 changes in chemistry of contents of stomach following gastric operation 58 principles of gastric surgery 38 re current peptic ulceration following for duodenal ulcer 38 fatal dysenteric enteritis directly secondary to for ulcer of stomach 467 late results of in ulcer of lesser curvature of stomach 46 gastroenterostomization 46
- Gastrointestinal tract Infantile mastoiditis with symptoms referable to 26 amylnitrate as antiprismatic in roentgen examination of 350 symptoms of masking disease of gall bladder 473
- Gastropyloromy End results of treatment of gastric ulcers by 380
- Gential orans De loplmental changes in during adolescence 3 treatment of tuberculosis of male 45 topography and clinical aspects of tumors of female 114 cytophary as aid to diagnosis of pelvic lesion in female 37
- Genu alnum Relation of rickets of lower extremities to 415
- Gland Structure and origin of mixed tumors of salivary 8 surgical treatment of tuberculous of neck 135 results of roentgen ray treatment of tuberculous cervical lymph 138 cervical lymph nodes in intraoral carcinoma 177 surgical treatment of cancer of cervical 22 tuberculosis of retrocaval 83 connections between pleura and cervical and axillary lymph 36 pathology of lachrymal in chronic epiphora 447 value of roentgen ray in diagnosis of tuberculosis of cervical in infancy 0
- Gland of internal secretion See I ndocrine gland
- Glaucoma Relation of cupping of optic disk to visual field 174 non-operative treatment of inflammatory conjunctival drain of anterior chamber in absolute 29 following obstruction of central vein of retina 59 features of complicating iridocyclitis 447
- Gonorrhea Ophthalmic and in oluntary nervous system 7 course of subject's eye and objective manifestations of ophthalmic in fifty elected patients 7 Basedow syndrome six months after treatment with iodine 7 indications for surgical treatment of toxic regeneration of the thyroid gland and prevention of recurrent heart block after operation for 265 pathological changes as result of administration of Lugol's solution in exophthalmic 363 pathogenesis of considered as one continuous disease process 373 nodular with hyperthyroidism 449 azocarmine Mallory stain of 449 difficult cases in diagnosis of ophthalmic 430 treatment of ophthalmic 40
- Gonococcus Employment of polar body de loping strains in treatment of infection due to 45 latent and permuculture 45

Iodine Basedow syndrome six months after treatment with 7 new compound for cholecystography 7 conditions under which will cause change in basal metabolic rate in man 7 occurrence of in conditions other than Graves disease 7 pathological change as result of administration of in exophthalmic goiter 363

Iodipin. See Iodized oil

iodism followin intrabronchial inj ction of lipiodol 11
iodized oil I ole of lipiodol in surgery of me Juillary tumor
9 iodism followin intrabronh al injection of lipiodol
11 uses and limitations of pneumo raply by lipiodol
193 t chnique of broncho raphy with 45

Iridocyclitis Application of heat by diathermy in 358
features of glaucoma complicating 447

Iris Essential atrophy of 1

JAUNDICE Studies in experimental obstructive of
87 test of shock from cold in hemolytic t r u t
theory of icterus of pregnancy and operative in t
tion 203 clinical aspects of 188

37w Metallic loops through bone to hold ascending aorta in place in fractures of lower sternum in metastatic breast cancer 36 surgical diathermy for malignant tumor in anterior air passage 263 a uterine ectomy 1 tis of superior maxilla in young infants 2 0

Jejunum. Choice of operations for pptic ulcer: effusion of clamps on gastro intestinal tract in product of acute traumatic ulcers of small intestine; actinomyotic ulceration of duodenum and 34 ulcer of stomach and 464 ulcer of stomach and 617 ulcer of jejunum; otic fistula; 464 ulcer of 464 rupture of bowel at juncture of 2nd duodenum 469

Joints Articular mechanism of diarthroses 41

Jugular vein Surgical intervention in infections of lateral sinus and internal J

KERATOCONUS Cases of 358

325
 Kidney Ectopic with triple ureter removed from man
 aged forty one years 38 normally placed in it pos-
 sessing two pelvis and two ureters opening separately
 into bladder with the center part of between pelvis
 occupied by Graafian tumor 38 motility of pelvis
 studied in freshly excised 38 all principal hyd-
 nephrosis treated by enucleation of and neplrocyte
 39 recurrent pyelonephritis in patient operated upon
 for ptosis of 39 health of patient twenty years after
 removal of tuberculous 39 papillary epithelioma of
 pelvis of 39 plastic surgery of pelvis of 40 iliac
 ureterostomy of main 41 in tuberculo sis of bladder
 after nephrectomy 40 tuberculo sis of 41 stricture
 of postoperative survival in tuberculo sis of 41
 incontinence of urine of renal 41 carbuncle of
 42 massive infarcts of 42 dia gnosis and treatment
 of malignant tumors of 42 pyelography and pyelo-
 scopy in diagnosis of tumors of 42 cystadenoma
 pseudopapilliferum malignant of 43 metastases in
 tomography tests of function of in prostate 44
 toxemia of pregnancy in relation to chronic card-
 iac vascular and renal disease 29 pyelovenous backflow
 300 crossed renal dystopia 300 relation of renal
 distortion to nephralgia 300 case of renal eteri-
 anomalies 300 nephrectomy for tuberculo sis of 301
 indigocarmine test as method of dia gnosis tuberculo
 sis of 300 villous tumors of renal pelvis and ureter
 323 324 325 326 327 328 329 330 331 332 333 334 335
 336 337 338 339 340 341 342 343 344 345 346 347 348
 349 350 351 352 353 354 355 356 357 358 359 360 361
 362 363 364 365 366 367 368 369 370 371 372 373 374
 375 376 377 378 379 380 381 382 383 384 385 386 387
 388 389 390 391 392 393 394 395 396 397 398 399 400
 401 402 403 404 405 406 407 408 409 410 411 412 413
 414 415 416 417 418 419 420 421 422 423 424 425 426
 427 428 429 430 431 432 433 434 435 436 437 438 439
 440 441 442 443 444 445 446 447 448 449 450 451 452
 453 454 455 456 457 458 459 460 461 462 463 464 465
 466 467 468 469 470 471 472 473 474 475 476 477 478
 479 480 481 482 483 484 485 486 487 488 489 490 491
 492 493 494 495 496 497 498 499 500

sarcoma of 404 pitfalls and complications of surgery of 404 roentgenographic measurement of compensatory hypertrophy of remnant after nephrectomy 405 unilateral aplasia of 400 ruptured 400 polycystic disease of 49r clinical course of renal tuberculous is 49r malignant tumor of in childhood 40 course of renal had pressure in obstructive lesions of urethra and bladder neck 402

knee Intern I deran ement of 137 traumatic l u ations of
 13 injuries of semilunar cartilages of 20 injuries
 of r n ci and h amentum murosom commonly called
 int rnal d r an m nts of cysts of semilunar
 cartilage of 305 treatment of sept c infection of 306
 operative h n l u n of severe suppurat ion of 306
 tuberculo s of in adult 15

Kyph. 1 over dorsal in adolescent 131

LABOP R lati e m e r t s of i n s t r u m e n t a l a n d m e d i c a l
m e t h o d o f i n s u n 3 f m e c h a n i c m o f c e r v i c a l c a l e
t i o n d u r i n g 6 s p o n t a n e o u s r u p t u r e o f t h e r u s b e f o r e
o r d i r i n g t r e t m e n t o f c a r d i a c c o m p l i c a t i o n f o r
p r e a n y a n d 20 r e p i r a t o r y e m p h y s e m a i n 20
c l i n i c a l s i g n s o f f e t a l d i s t r e s s 0 6 t r a t m e n t o f c o n
t r a c t u r d y t o a i l d a d r e o l i n o f m c h a m
o f i n t r a t e d p e l v 0 6 v a l u t i o n o f m t h o d s n
o l t r t r a n s l e c 2 a n d a n t h e 2 0 r e s u l t s o f
s u p e r i s e l m o d e l f 1 a t t i c e i n c e t a n 0 7 O p e n
o u t r i e 0 9 r e t a d m i n i s t r a t i o n o f e t h e r i n o l
a n t m o r t i n e m n e u m a l p h i t a n d t h e r i n
l i t t e s 3 3 i n c e t r a t e d p e l s 30 t r i l i n
t r i t m n t f j j t i n s i t h c o n t a t t p e l 30
i n s u n e o f t h e i d o n 4 8 i n c a s e o f h y m p l i a
4 8 c a u s a t i o n o f o n s t f 4 8 m o r p l e n e a n d m r s
n u m s u l p h a t e i n f i l t r a t i o n a n d c o l o n c e t l e r i n
s t i l l a t n i n 4 8 p e d t l l y e n e l a n a n t o
a n d p e r t e r n i s i o n i n c e r m a l e b e c a u s e o f f e t a l
d i s t 4 8 r u p t u r e f a o t a d r i n 4 8 m e d i a n
a n t e r n a n d p o t n o r n i s i o n m a l e i n c e r i n
r e o p r o l a g d b y r d u t y o f c e r i n 4 8 e p
t o n o f m y m i h p l i d r i n 4 86 h y m e r r h a e
f o l l o w i n g t a t d b y c l a m p s f i t i n p l a c 4 86

Labyrinthine position of physiology of 15

Labynthat Supyr rat e (

Lachrymal glands Pathology of in chronic epiphora
447

Lam necto ny 49

Laryn cctomy in

Laryn tis Streptococcc 8 a ute stenot c of infectious
or gun 45r

Larynx fissure in treatment of intrinsic carcinoma of larynx 206

265 Laryngeal complications of irradiation in 93 grafting of skin in by Thierck method 93 use of surgical diathermy for malignant tumors in anterior air passages 263 laryngoscopy for intrinsic carcinoma of 266 larynx ectomy in cancer of 266 study and treatment of papillomata of in children 45

Lateral sinus Surgical intervention in infection of and internal jugular vein 1

Leid m treatment of malignancy 60 142 316
 Ler St bilization of fluid 408 treatment of fractures of

Lens Cultivation of epithelium: 1/4 non operative treatment of cataract with anti en 355

Leukemia Splenectomy in 44

light treatment of *S. Actinotiller* p3 Heliotherapy
Lap Surgical correction of cleft 16 importance of
pediatric care in operative treatment of hare lip 176
surgery in cases of intra oral cancer 36

Lipiodol. See Iodized oil

- Nephrectomy. Iliac ureterostomy of remaining kidney in tuberculosis of bladder after 40. duodenal fistula following 123. review of eighty five cases of for renal tuberculosis 301. roentgenographic measurement of compensatory hypertrophy of kidney remaining after 403. secondary 40.
- Nephritis. Accidental hemorrhage eclampsia and chronic 483.
- Nephroptosis. Small painful hydronephrosis treated by enervation of kidney and 33.
- Nerve. Delayed paralysis of ulnar following fractures of external condyle of humerus 93. anatomical anomalies of phrenic and their influence on effects of resection in pulmonary tuberculosis 95. changes in histological structure of cancer following section of its sensory and influence of the neurotomy on course of various pathological processes 142. pallor of optic without functional disturbances in leucitis 175. deaf mutism due to bilateral lesion of auditory sensory areas 175. herpes zoster oticus 15. experimental anatomical pathological basis of surgical treatment of neuralgia of trifacial and changes in gasserian ganglion in retroauricular neurotomy 180. fractional section of sensory root as major operation in trigeminal neuralgia 180. nomenclature of optic neuritis 350. etiology, diagnosis and prognosis of optic neuritis 359. optic neuritis as aid to diagnosis 359. complete obstetrical paralysis of right brachial plexus and right phrenic in infant two and one half months old 402. prevention of injury to musculospiral 45.
- Nerves. Palsies of cranial in otitis media 175. syndrome of unilateral paralysis of all cranial 199. permanent disturbances of resulting from spinal anesthesia 9. physiology of muscle innervation 368. relation of distribution of sympathetic rami to brachial plexus to sympathetomy affecting upper extremity 360.
- Nervous system. Exophthalmic goiter and in voluntary encapsulated tumors of 10. physiology of muscle innervation with special reference to influence of sympathetic system 368. structure and formation of interstitial tissues of central 456.
- Neuralgia. Experimental anatomical pathological basis of surgical treatment of of trifacial nerve and changes in gasserian ganglion in retroauricular neurotomy 180. fractional section of sensory root as major operation in trigeminal 180. stimulation of gall bladder disease by intercostal of abdominal wall 192. chronic pseudopseudoparalysis due to intercostal 84.
- Neuritis. Retrobulbar and infection of accessory nasal sinuses 61. etiology, diagnosis and prognosis of optic 359. nomenclature of optic 359. optic as aid to diagnosis 359.
- Neurofibromatosis. Perineural 10.
- Neurogenic sarcoma 369.
- Neuroglia. Reaction of and microglia to brain wounds 179.
- Newborn. Hemorrhage of 401.
- Nipple. Bleeding from 11. Paget's disease of not a simple precancerous dyskeratosis but a true epidermotrophic carcinoma requiring early and complete removal of breast 182.
- Nitrous oxide anesthesia. In Germany 57. in obstetrics 9.
- Nose. Relation of polypi to inflammation of accessory sinuses of 6. meningitis of nasal origin 6. occurrence of brain tissue within 89. treatment of malignant tumors of nasopharynx 90. tissue changes in mucosa of 16. diathermy for malignant tumors in anterior air passages 63.
- Nurses. Fundamental training for obstetrical 07.
- OBSTETRICAL nurses. Fundamental training for 20.
- Obstetrics. Responsibility of teacher of in relation to maternal mortality and morbidity 36. evaluation of method of anesthesia and analgesia in 97. results of supervised midwife practice in certain European countries 99. rectal administration of ether and oil and morphine magnesium sulphate and ether in 373. points in for reconsideration and revision 488.
- Oesophagus. Pathology of 13.
- Oesophagus. Cancer of 184. experimental surgery of 185. diaphragm of thoracic 377.
- Omentum. Cystic lymphoma of great 379. torsion of great 379. torsion of without hernia 460.
- Operation. Factors determining resistance of patient and decreasing risks of 506.
- Optic disk. Relation of cupping of to visual fields in glaucoma 74. mechanical factor in causation of choked in intracranial lesions 267. ocular phenomena caused by basal lesions of frontal lobe 365.
- Optic nerve. Pallor of without functional disturbances in leucitis 175.
- Optic neuritis. As aid to diagnosis 359. nomenclature of 359. etiology, diagnosis and prognosis of 359.
- Orbit. Granuloma due to a perigillius invading 174. peritheloma of 358.
- Orthopedic surgery. Physical therapy and its relation to 49.
- Osteitis. See Calcaneum.
- Osteitis. Pathogenesis of fibrosis 30. frequency and duration of osteitic processes after osteosynthesis 40. differentiation of deformations and osteoplastic metastatic carcinoma 498.
- Osteoblast. Origin and nature of 470.
- Osteomalacia. Ovary in 29.
- Osteomyelitis. Recurrent multiple due to staphylococcus aureus 130.
- Osteoarthritis. Treatment of by physical agents 30.
- Osteosynthesis. Frequency and duration of osteitic processes after 419.
- Otitis media. In infant 5. influence of acute in infants on certain systemic conditions and influence of these conditions on method of treating coexisting acute 6. cranial nerve palsies in 175.
- Otolaryngology. Pediatric aspects of 5.
- Otosclerosis. National investigation of 361.
- Ovarian extracts. Action and uses of 396.
- Ovary. Mechanism and anomalies of ovulation in human 32. action of X rays on endocrine glands 60. ovarian therapy 11. calcareous concretions probably of ovarian origin simulating uterine or vesical calculi 112. carcinoma of 113. ovarian metastasis with cancer of uterine body 113. topography and clinical aspects of tumors of female genitalia 114. lymphatic origin of certain cystic formations in pelvis following total castration of female 115. repeated pregnancy after amenorrhea induced by roentgen irradiation of 116. gynecological considerations in chronic appendicitis 285. histological changes in vagina in different phases of functional cycle of 92. in osteomalacia 29. cyst of diagnosed as fibroma of uterus 292. pseudomyxoma peritonei associated with ruptured cyst of and appendicular disease 379. carcinoma of in infancy 397. influence of alcohol on activity of in mice 403. dysfunction of dependent on abnormalities of ductless glands 49.
- Ovulation. Mechanism and anomalies of in human ovary 32.
- Oxygen. Value of following bronchoscopy in children 273. therapy 459.
- Ozena. Experimental 89.

- Prostatitis Prostatotomy in treatment of urinary retention in course of acute gonorrhoeal 42 backache due to seminal vesiculitis and 45
- Prostatotomy in treatment of urinary retention in course of acute gonorrhoeal prostatitis 42
- Protein decomposition Relation of to pathology of gastro duodenal ulcer 462
- Protein therapy in practice 3
- Pseudarthroses 308 new method of treatment 49
- Pseudomyoma peritonei associated with ruptured ovarian cyst and appendicular disease 379
- Psychoses Mal nant related to childbirth 487
- Puerperium Acute endocarditis in pregnancy and inversion of uterus in 07 localization and frequency of metastases of sepsis in 298 early retroversion of uterus after delivery 298 total gangrene of uterus during 99 abdominal reposition in acute 100 inversion of uterus in 401 in case of haemophilia 480 surgical treatment of puerperal processes 487 pneumonia 487 peritonitis during 487 malignant psychoses related to childbirth 487
- Pulmonary artery Successful Trendelenburg operation for embolism of 504
- Purpura hemorrhagica Results of splenectomy for 45 chronic recurrent treated by splenectomy with recovery 505
- Pylitis In pregnancy 13 treatment of of pregnancy with indwelling catheter 13 ureteral stricture a chronic in children 13
- Pyelography and pyelocopy in diagnosis of tumor of kidney and renal pelvis 12
- Pyelonephritis Recurrent in patient operated upon for renal ptosis 39 stricture formation in ureter following of pregnancy 213 involving ureteral catheter in treatment of and other renal conditions 30 and its relation to non gonorrhoeal urethritis 30 with a otic syndrome 404
- Pyeloscopy Pyelography and diagnosis of tumor of kidney and renal pelvis 12
- Pyelovenous backflow 300 injection of renal pelvis with special reference to question of 404
- Pylorotomy for ulcer of stomach
- Pyloric stenosis Effect of experimental on gastric secretion 101
- Pyloroplasty Choice of operations for peptic ulcer 10 principles of gastric surgery 381
- Pylorus See Stomach
- Pericardium Pericardiotomy for 13
- Pyuria Treatment of in children 496
- RADIUM** Treatment of carcinoma of rectum by irradiation 5 treatment of cervical carcinoma with 41 in treatment of malignant tumors of nasopharynx 99 in treatment of cancer of tongue 91 in treatment of cancer of breast 96 treatment of malignancy of cervix by emanation 110 dangers of in treatment of uterine cancers 111 changes in bladder in cases of cancer of uterus treated by irradiation 116 ulceration of bladder as late effect of applications of to uterus 116 treatment of osteosarcoma by physical agents 130 in intraoral cancer 17 modern concept in and treatment of uterine fibroid 197 submucous fibroids and their treatment 198 examinations of blood of patients with carcinoma of uterine cervix during treatment with 198 value of transurethral injections of dextro e durin radiation treatment of malignant disease 230 importance of vascular permeability in therapeutic use of in malignant disease 30 parasternal invasion of thorax in breast cancer and its suppression by use of tubes of as operative precaution on 72 treatment of cancer of rectum with by open operation 286 end results of treatment with in carcinoma of cervix uteri 291 malignant tumors of thyroid gland treated by operation roentgen rays and 364 radiobiology of carcinoma of cervix submitted to at distance 393 present status of therapy of cancer of uterus 394 treatment of tumors of bladder with physical agents 406 seen in cure of cancer of bladder from treatment with 407 radiological versus operative treatment of cancer of uterus 476 treatment of cancer of cervix of uterus with 47 treatment of brain tumors by irradiation 453
- Padus Open reduction of fractures of forearm 133 treatment of fracture of lower end of 21 new operative procedure for dislocation of head of 420 congenital radio ulnar synostosis 498
- Padon's cells Action of on tumor and liver cells of rat 58
- Painful disease of the nose of in obliterative a culture diseases 54 somotor disturbances including 54
- Reoperation Method of 86
- Radiation in treatment of carcinoma of lymphatic principles underlying in surgery of carcinoma of translocation of ureters into the urinary control in cancer of vesicovaginal fistula 13 treatment of cancer of the rectum by open operation 86 cancer of pelvis colon and rectum of cancer of 47 choice of operation in treatment of 47 symptoms of 47 abdominal radiation of cancer of upper part of 4
- Retinal hyperemia and glaucoma following of central vision 59 some points in connection with detachment of 6 phthorophthalmia in macular region and associated changes 261 surgical treatment of detachment of 6 changes in fundus of the eye 448 ring of striae in 448
- Retinal artery Bistrial papillary scleral loop for artir spasm and occlusion of branches of central artery of 5
- Retinal en Glaucoma following of operation of central vision 59
- Retinitis With massives 359 punctate albescent 39
- Petrobasilar neuritis and infection of the accessory nasal sinuses 61
- Rub Technique of resection of first two by perosternal sup scapular route 1
- Rice bodies Formation of in tuberculosis 17
- Rickets Relation of to hereditary to genu valgum and static flatfoot 415
- Roentgen ray Dose in treatment of ulcerations due to 58 effects of on development of embryo of hen 208
- Roentgen ray diagnosis Role of lipiodol in surgery of medullary tumors 910 small follicular intracranial injection of lipiodol 1 primary tumors of lung 1 of thymus in children 14 ne iodine compound for cholecystography physio time as aid in gastro intestinal ro safety of hystero-radiography 99 pyelography and pyelocopy in diagnosis of tumors of kidney and renal pelvis 12 intracavitary injections and substances opaque to roentgen ray which are suitable for injection 136 uses and limitations of pneumography by lipiodol 193 of intrathoracic growths 85 common duct stasis related by tetraiodophenolphthal test 94 roentgenograms of fracture of femur blood vessel visualization 5 of skull and intracranial lesion 268 1 diections for and technique of entriculo-radiography 265 chronic meningeal (post traumatic) headache and its specific treatment by lumbar air insufflation 270 of malignant

- Splenectomy 392 indications for 195 in pernicious anemias and leukemias 474 results of for purpura hemorrhagica 4 5 505
- Spondylitis See Spine
- Squint Mechanics of operation for 4
- Staphylococcus aureus Recurrent multiple otcomyelitis due to 130
- Sterility Treatment of of uterine origin 33 diagnosis and treatment of of tubal origin 33 working classification of causes of 397 study of by peruterine insufflation and kymograph 4 8
- Sterilization Dry of instruments 3 of sharp instruments 509
- Stomach Perforation of ulcer of in boy of twel e 6 acute perforation of ulcers of 16 pylorotomy for ulcer of 17 primary resection of in perforating ulcer of 17 final results of gastric resections for cancer of 17 status of gastroenterotomy in surgery of 17 effect of Billroth II resection of on function and structure of pancreas and on intestinal absorption 18 physiology of as aid in gastrointestine roentgen ray diagnosis 190 effect of experimental pyloric stenosis on secretion of 101 relation of chronic gastritis to achylia and ulcer of 101 peptic ulcer 101 treatment of hemorrhage of 101 part played by infection in development of certain ulcers of 102 conservation of surgery for ulcer of 102 choice of operations for ulcer of 102 complete gastrectomy for chronic ulcer of with observations on effect of loss of on physiology of digestion in man 103 results of twenty five year operation 104 treatment of ulcer of 186 partial gastrectomy versus gastroenterostomy for ulcer of 187 secondary resections of in disease conditions after gastroenterotomy 188 changes in chemistry of contents of following operations on 188 study of external function of pincere in cholecystitis and gastroduodenal ulcer by simple and fractional examination of duodenal juice 194 medical cure under radiological control of of crate ulcers of 216 corrective surgery following unsuccessful operation for ulcer of 7 omitting after operations on 278 use of amyl nitrite as antispasmodic in roentgen examination of gastrointestinal tract 380 influence of roentgen rays upon secretion of 380 investigation into defects in pyloric part of 380 end results of treatment of ulcer of by gastropylorotomy 380 concomitant gastric and duodenal ulcers two and one half years after operation 38 lymphogranulomatosis of 381 principles of surgery of 381 management of lesions of and duodenum complicated by hemorrhage 381 successful resection of of upper half of 383 duodenal reoperation as factor in neutralization of acidity of 384 snail and partial sufficiency of pylorus 385 volulus of 467 electrolocalization of streptococci isolated from cases of peptic ulcer 461 mechanism of pain production in peptic ulcer 462 inflammatory and toxic factors in pathology of gastroduodenal ulcer 46 peptic ulcer after extensive resection of 463 ambulatory treatment of peptic ulcer 464 ulcer of and jejunum 464 treatment of ulcer of 464 465 ulcers of and jejunum and gastrojejunocolic fistula 464 care of ulcer of by intensive alkaline treatment 465 trend of surgery of 466 fatal dysenteric enteritis directly secondary to gastroenterostomy or extensive gastric resection for ulcer of 467 late results of gastroenterotomy in ulcer of lesser curvature of 467 acidity of following gastric resections 468
- Strabismus Mechanics of squint operation 4
- Streptococci Tests of influence of in treatment of cancer of uterus 90
- Suprarenalectomy in juvenile endarteritis obliterans and Burger's disease 54
- Suspensor Traction and 418
- Sympathectomy Results of perarterial according to inquiry made among surgeons of Russia in 1916 181 effect of of hepatic artery on wound healing and on bile and glycogenic function of liver 28 discordance between local hyperthermia following and findings of study of arterial circulation in these cases 137 superior cervical sympathetic ganglion in innervation of relation of distribution of sympathetic ramus to brachial plexus to affecting upper extremity 360 perarterial in freezing 455
- Sympathetic ganglion Microscopic study of superior cervical in innervation of 1
- Symphiotomy Partial as compared with cesarean section in contracted pelvis 20
- Syphilis Optic nerve pallor without functional disturbance 15 induction of abortion in 29 tumors of brain and 363 anlysis of Wassermann reaction in 300 pregnant women 480
- Symphysis pubis Spatulation of during labor 486
- TABES Tabetic Charcot spine 279
- Tannic acid in treatment of denuded surfaces 507
- Tar ectomy Late results of atypical in diffuse tuberculosis of posttortarsus in children 49
- Tarsus Late results of atypical tarsal sctomies in diffuse tuberculous of posterior in children 49 late results of operation on in tibiotarsal tuberculous of infants 31
- Tetrahymena of fracture of scapula of 42
- Tetralogy of Fallot of the heart and treatment treatment of chronic fusosplinary infection of pericardium 16
- Tendon of Achilles Rupture of 3
- Tendon Rupture of 218
- Tetradonitrite an Pathogenesis of 5
- Tetralogy of Fallot of the heart and treatment treatment of malignant tumors of testicle 124 diagnosis and treatment of malignant tumors of 49
- Tetany Cataract and postoperative 44 chronic postoperative 50
- Tetradiodophenolphthaleim Common duct stasis relieved by in patient who had been subjected to cholecystectomy 194 to effects of sodium 391
- Thoracoplasty Surgical treatment of pulmonary tuberculous 374 comparison of operations and results in non tuberculous pulmonary suppuration 374
- Thoria See Chest
- Throat See Pharynx
- Thromboangitis obliterans Erroneous diagnosis of Raynaud's disease 54 of lower extremities with pulsation pedal artery 54 primary involvement of upper extremities in 136 diagnosis and treatment of arterial disease of extremities 312
- Thymic stridor 14
- Thymus Roentgen diagnosis and therapy of in children 14 obsession 455
- Thyroglossal duct Technique of removal of cysts and sinuses of 363
- Thyroid Malignant disease of 92 adaptation to therapy in malignant diseases of 93 aberrant 18 resection of and prevention of recurrent tumors of 64 malignant tumors of treated by operation radium and roentgen rays 364 relation of hyperthyroidism to benign tumors of 449 anesthesia in surgery of 451
- Tibia Late results of operation in tibiotarsal tuberculous of infants 307

- course of labor prolonged by rigidity of cervix of 485
 delivery expedited by large median anterior and
 posterior incision made in cervix of at onset of dila-
 tation 48 hæmorrhages following delivery treated
 by application of clamps which were left in place 486
 subcutaneous exteriorization of incision in after late
 cesarean section 486
- Uvea Entropium of 174*
- VAGINA** Transplantation of ureters into bowel to
 secure sphincteric urinary control in incurable vesico-
 vaginal fistula 113 histological changes in in differ-
 ent phases of functional cycle of ovary 292 uretero-
 vaginal and vesicovaginal fistule combined 293
- Varicocele** Hæmaturia due to vesical varices associated
 with pelvic cured by resection of 406
- Varicose veins** Etiology and treatment of 52 injection
 treatment of and their sequelæ 53 136 of leg from
 point of view of etiology and surgical treatment 53
 treatment of with sugar injections combined with
 venous ligation 502
- Vasoligation** as preventive of epididymitis before and
 after prostatectomy 494
- Vein** Surgical intervention in infections of lateral sinus and
 internal jugular 1 glaucoma following obstruction of
 central of retina 259
- Veins** Fate of foreign bodies in venous circulation 5
 etiology and treatment of varicose 52 53 injection
 treatment of varicose and their sequelæ 53 136
 treatment of varicose with sugar injections combined
 with venous ligation 502
- Vena cava** Effects of denudation of inferior at its be-
 coming at renal vein 50
- Ventricles** Observations regarding ventricular punctures
 365
- Ventriulography** Indications for and technique of 68
- Version** In estimation into results of breech labor and of
 prophylactic external cephalic during pregnancy 36
 technique of external 36
- Vertebrae** See Spine
- Vertigo** Surgical treatment of by opening saccus endo-
 lymphaticus 89 176
- Visual fields** Relation of cupping of optic disk to in-
 glaucoma 14 types of defects of 60
- Vision** Sight among classes work from standpoint of oph-
 thalmologist 447
- Vitamines** Relation of deficiencies to diet deficient in 5
- Vitricous** Loss of n cata act extraction 60
- Vomiting** after operations on stomach 278
- WASSERMANN** reaction Analysis of in 000 preg-
 nant women 490
- Whitlow** Hutchin on melanotic 140
- Wound** Effect of sympathectomy of hepatic artery on
 healing of 4 unusual fatal infection of operation
 yielding pathogenic anaerobe of gas gangrene group
 not hitherto described 313 inadequate skin prepara-
 tion as cause of infection of operative 506
- Wrist** Ankylosis of 46
- XRAY** See Roentgen ray

BIBLIOGRAPHY INDEX

SURGERY OF THE HEAD AND NECK

Head 62 145 233 318 4 3 513
 Eye 6 145 233 318 423 513
 Ear 63 146 34 319 424 514
 Nose and Sinuses 64 147 234 320 425 514
 Mouth 65 147 235 320 425 515
 Pharynx 65 147 235 320 425 515
 Neck 65 147 235 3 1 4 6 5 5

SURGERY OF THE NERVOUS SYSTEM

Brain and Its Covering Cranial Nerve 66 49 31
 321 427 516
 Spinal Cord and Its Coverings 67 149 32 428 517
 Peripheral Nerves 67 149 237 322 4 8 517
 Sympathetic Nerves 67 149 37 32 428 5 7
 Miscellaneous 67 149 237 3 4 8 517

SURGERY OF THE CHEST

Chest Wall and Breast 68 150 237 323 428 518
 Trachea Lungs and Pleura 68 50 37 323 428 518
 Heart and Pericardium 69 151 238 3 3 430 519
 Esophagus and Mediastinum 69 151 238 324 430 5 9
 Miscellaneous 69 151 238 3 4 430 519

SURGERY OF THE ABDOMEN

Abdominal Wall and Peritoneum 69 151 39 324 430
 519
 Gastro Intestinal Tract 69 151 239 325 431 520
 Liver Gall Bladder Pancreas and Spleen 71 154 41
 327 433 522
 Miscellaneous 73 155 4 328 434 523

GYNECOLOGY

Uterus 73 156 243 3 9 435 523
 Adnexal and Peritoneal Conditions 74 156 43 3 9
 435 524
 External Genitalia 74 157 244 330 435 525
 Miscellaneous 74 157 44 330 436 5 5

OBSTETRICS

Pregnancy and Its Complications 75 58 245 331 436
 525
 Labor and Its Complications 76 160 247 332 437 5 6
 Puerperium and Its Complications 77 16 48 333 438
 527

Neonatal 7 161 49 333 438 527
 Miscellaneous 77 161 49 334 438 528

GENITO URINARY SURGERY

Adrenal Kidney and Ureter 77 16 249 334 438 528
 Bladder Urethra and Penis 78 6 250 335 439 529
 Genital Organs 79 6 5 335 44 530
 Miscellaneous 79 163 51 335 440 530

SURGERY OF THE BONES JOINT MUSCLE TENDONS ETC

Compound Fracture Bone Joint Muscle Tendons Etc
 79 64 5 336 440 53
 Surgery of the Bone Muscle Tendons Etc 8 (5
 333 442 3
 Fractures and Dislocation 81 161 53 338 44 532
 Orthopedic in General 1 330 443 533

SURGERY OF THE BLOOD AND LYMPH SYSTEMS

Blood Vessels 8 167 2 4 339 443 533
 Blood Transfusion 8 67 54 340 444 533
 Lymph Vessels and Glands 83 168 254 341 444 534

SURGICAL TECHNIQUE

Operative Surgery and Technique Postoperative Treat-
 ment 83 68 2 34 444 34
 Antiseptic Surgery Treatment of Wounds and Infections
 84 68 5 34 444 534
 Anesthesia 84 169 55 34 445 534
 Surgical Instruments and Apparatus 169 34 445 535

PHYSICO-CHEMICAL METHODS IN SURGERY

Poentgenology 84 70 56 34 445 535
 Radium 84 70 256 343 445 535
 Miscellaneous 84 170 256 343 445 535

MISCELLANEOUS

Clinical Entities—General Physiological Conditions 85
 170 257 343 446 53
 General Bacterial Protozoan and Parasitic Infections
 85 71 257 344 446 536
 Ductless Gland 86 172 58 446 536
 Surgical Pathology and Diagnosis 86 7 58 344 446
 536
 Experimental Surgery 72 344
 Hospitals Medical Education and History 172 58 344
 536

AUTHOR INDEX

- Abadie J 17
 Addison O L 90
 Adler F H 173
 Albree F H 304 421
 Allen D S 372
 Allen E V 54
 Allen J H 472
 Alvarez W C 16 468
 Alyea E P 494
 Anderson J 371
 André F 40
 Andrei O 308
 Andresen A F R 101
 Angelelli O 135
 Antonucci C 300
 Arauz S L 452
 Archibald E 371 374
 Arens R A 17
 Ansz L 380
 Armani L 96
 Arn R D 129
 Arnaud M 506
 Arnould N 88
 Auvray 501
- Babauantz L 461
 Babcock W W 100
 Bailey H 399 494
 Baird D 36
 Baker S J 40
 Balado M 453
 Balboni G M 373
 Balfour D C 381
 Ballantyne A J 359
 Bandler C G 495
 Banzet 366
 Baran er 90
 Barbellion P 45
 Bargen J A 386
 Baur ty M 11
 Barlow R A 5
 Barnes F L 108
 Barnett L C 511
 Barthélemy 398
 Bass M H 356
 Basset 387 468
 Basset A 10 388
 Beadle O A 474
 Beckman H 509
 Bedell A J 261
 Beer E 406
 Begg R C 31 118
 Beggelman M N 447
 Belcher G W 300
 Belden W W 14
 Belfield W T 408
 Beller A J 279
 Benda R 295
 Bérard 130
 Berghausen O 232
 Bernard A 95
 Bernard R 227
 Bernheim B M 225
- Bernstein M A 217
 Bernsten A 53
 Berry Sir J 90
 Bianchen T 122
 Bianchi G 471
 Bierendempfel Fleick E 94
 Bil er F 406
 Blake J A 418
 Bledsoe R W 358
 Bohmansson G 88
 Bohnen P 485
 Boldyreff W N 380
 Bollman J L 386 391
 Bonnet P 109
 Bonney V 283
 Boorstein S W 34 20
 Boothby W M 73 459
 Boppe 19
 Borchers E 383
 Bordier H 58
 Botreau Poussel 105
 Botsford M E 46
 Bourde Y 505
 Dowin H H 25 364
 Boyd W 27
 Boyden E A 390
 Braasch W F 406 497
 Bracca Torsi H 50
 Brain W R 453
 Brehm W 486
 Breitkopf E 461
 Brennemann J 387
 Brenner E C 1
 Bressot 217
 Brindley G V 23
 Brisset 32
 Bristow W R 30 4 8 498
 Brofeldt S A 209
 Brougher J C 188
 Brouha 296
 Brown A L 371
 Brown E V L 447
 Brown G E 54 311
 Brown R K L 303
 Bruegelmann C 298
 Brun F G 60
 Brunn H 186
 Buchbinder J R 75
 Buchbinder W C 87
 Bué V 482
 Bunnell S 91
 Burden V G 288
 Burnam C F 177
 Butler H B 103
 Butler T H 175
- Cabot H 493
 Cadenat 104 105
 Calhoun J P 448
 Campbell M F 127 231 408
- Cantelmo O 503
 Caorsi L J 283
 Capiz ano N 477
 Capps J A 74
 Caraven 387
 Carey E J 48
 Carnett J B 9 2 5 84
 Carp L 33
 Carranza F 477
 Carrington G L 18
 Ca son W J 125 405
 Carvill M 173
 Casariego A G 42
 Case J T 3 0
 Cassut A 300
 Castellani A 511
 Cayla A 195
 Cayl i H D 391
 Champ n A N 45
 Chapman J F 4 9
 Chapman S J 0
 Charbonnel 82
 Charles Bloch 80
 Chatillon F 33
 Chau in L 41
 Chevassu 0
 Choisy R 46
 Christopher F 345
 Christophe son J B 511
 Ciminuta A 18
 Clark S L 271
 Clerf L H 93
 Clow A E S 3
 Clute H M 138
 Cockayne E A 496
 Coffey R C 80
 Cohen M 357
 Cohn I 133
 Coley W B 231
 Colled e L 66
 Collins C W 494
 Collins L 37
 Condamin F 1
 Conley A H 20
 Constan G R 136
 Constans G M 1 3
 Conwell H L 133
 Corbus B C 2 3 301
 Cornil I 115
 Corwin J 295
 Cosacese 468
 Cosgrove K W 357
 Cotton F J 50 420
 Counsell V S 387 390
 Crabtree E G 213
 Craig G 393
 Craig W Mck 366
 Cra nicianu A 506
 Crane J F 484
 Craver L F 60
 Crayer 267
 Crosbie A H 492
 Crowe S J 261 372
- Crowther W L 401
 Cruckshank J N 205
 Cryderman W J 280
 Cubbins W R 0
 Cuizza T 290
 Cummin R E 49
 Cunfo 380
 Curtis A H 0
 Cutler C W Jr 283
 Cutler E C 458
 Cutler I H 128
 Cutler M 369
- Dahl Iversen E 194 419
 Dallera N 292
 Danf rth W C 13
 Danhuez P 121
 Dansey St J W 16
 Darcissac M 2
 Darlet R 39
 Da id A C 6
 Davidson H S 204
 Davis C H 297
 Dean A L Jr 1 0
 Dean L W 6 03
 D chaume M 1
 Deja W 130
 De Kleijn A 17
 D la enière Y 9
 Delcour J 95
 DeLee J B 116
 Delrez L 9
 D i Rio Hortege P 79
 Delzell W R 490
 Demel R 383
 Denis R 95
 Derby G S 73
 Desgouttes L 95
 Desjacques R 5
 De plas B 30
 Despons J
 Devèze L 11
 Devine H B 17
 Dick B M 391
 Dimond L 45
 Diss A 182
 Dittmch K von 18
 Di on W E 396
 Dodds G H 480
 Donati M 131
 Donovan C 453
 Dore E 58
 Dott N 89
 Douay L 33
 Doubleday I N 176
 Dougal D 391
 Dowden J W 283
 Dowling E 454
 Dözza L 302
 Draper J W 386
 Dres er R 360
 Droegeumellet E H 101
 DuBoise F G 28

- D dge L b 4
 D fly J J 77
 D ma A 37
 D nh m E L 50
 D hll T P 9 45
 D phy F B 6
 Du sld sp M 4
 D t A P 393
 D al P 5
 Dyke S C 37
 Eb b h C W 9
 Eb t E M 9
 Eg r C 3 3
 E hh ff C 8
 F d A 58
 F d th D N 3
 El E L 469
 Il t E J 8
 Ellus Z H 53
 El b rg C A 16 454
 El J E 64
 Ely I W 309
 Em I P 63
 Esk ls I H 4
 E k lu d V
 Evan J
 Fab K
 Far e C H
 F ba J s 3 9
 F l n R 6
 Fall L S C
 Falt P 4
 Fa m H L 4
 Fa C E 3 7
 Fa G M 5 6
 Fa J L 5
 F del F 500
 F W A 8
 Feldma M 54
 Fent R A 59
 F y 48
 Fld C 46
 F n k H I r 6
 F ndley P 07
 F n ff W C 3
 F a h tt R 38
 F az NS 96
 F az O 4
 F he 7
 F he A 49
 F h r A L 4
 F tt W T 388
 F tz ld R R 9
 F tz G bb G 484
 F tz ll m D C L 9
 Fl I 50
 Fl hm n C F 393
 F nt R 3
 F t f P 448
 F t H J 4
 F v L W 6
 F k A 44
 Fa k R T 478 5
 F r J
 F ser J P 9
 F ser J S 5 36
 Fraz C H 80
 F ed F C 6
 Fr b rg A H 49
 Fr d n d J 54
 Fr nt cl E 9
 Fruh n h L A 93
 Fry R M 87
 Fuld F 88
 Full ton A S
 F H D 293
 Gab l l W B
 G n l n I J 4
 G lla h W J 9
 Ga P 9
 Garip J 486
 G s 4 6
 G d n A 4
 Ga d H 4
 G S H 58
 Ghed A 86
 C bbe d G F 36
 G bbo A A 434
 G lla H Z 39
 G l H H 4 4
 G n al L L 9
 G p c I F 5
 Gld t I J 47
 Go E L 59
 G b l 47
 G tt k 30
 Goldb L M 4 478
 Go d n C A 04
 G d W t S C
 Gottl b J 3
 Gottl b J G 300
 G y J P 43
 G dl H S 59
 G b m E A
 G g F B 3 5
 G t F C 04 08
 G th m S A 3
 G m n M 3
 G m P M 479
 G R C 5
 G W P 1
 G v H T 498
 G b um S S 25
 G C H 6
 G L B 49
 G eg R 50
 C g H 3
 C y T r G 9
 C ma lt L 388 4
 C om J M 4 445
 C m n J 498
 Gru A 3
 Gub l l
 G ll m A 5 6
 G th D 80
 Gw thmey J T 5 8
 Had R L 3
 H g B H 406 403
 H b E v 356
 H s S F 45 459
 H lb t m K T A 447
 Hamant A 5
 H m k R A 6
 Ha dl v W S 72
 Hanf rd J M 38
 Hanr ban E M Jr 509
 Ha dusty R H M 464
 Ha e D C 496
 H rr h F W 49
 Ha ngto S W 47
 Ha t V K 8
 H tma H 467
 Ha lh st G 09
 Ha lblatt R 94
 H tch R A 3 3
 Hawth n A B 490
 Heddl m C A 98
 H m n I 6
 H ll t m J 39
 Helm h L H F 4 8
 Hempst ad B E 46
 H d o V S 3 4 5
 H dry J 7
 H n ke J A 176
 He ma ge M 95
 He d K F 9
 H ck W W 95
 H r m L C
 H rtzl A E 8 3 6
 353 4 6
 He G J 5
 H tt J 36
 H yd C G 482
 H y G E W 499
 H yma J 476
 Hirs h L I 41
 H u ch I S 73
 H r t B C 4 9
 Holf J 35
 Hoffm n A 43
 Holm s G W r 47 38
 H lt ma C 6
 Hoop C W 5 8
 H pk J G 73
 H r J 89
 H r witz E A 94
 H r l y J S J 3
 187
 H rt l m 4
 H C 463
 H d H J 4
 H wtt F D 358
 H lb d W B 357
 H bl M 3
 H et J A 194
 H f d S R 46
 H gh C 5 9
 H gh W 6
 H mph y F B 3 3
 H n G L 3
 H nt A C 39 397 4 7
 495
 H t gt J L 40
 H l y M V 497
 Hyd T L 1
 Hym H T 7
 I b ah m A B 44
 Iked K 3
 I D H 4 9
 Ill gw th C F W 19
 I be K R 4
 I geb gts K 3 6 4 7
 Irv F C 4
 I h H 8
 I y A C 30 101
 J ck on A S 507
 Ja ks n R H 2 1
 J obs A W
 J cques L 447
 Jall H L 3 5 3 9
 James R 377
 J y l F 334
 J ff n G
 J ll tt H 1 7
 Je n s J E 98
 J bson G B 70
 J l J J 5
 J h o C M 46
 J hn o H L 6
 J hnso R K 386
 J hn t e R W 3
 Jo e I 465
 J es L W 359
 J d n S M 464
 J dd E b s 4 36 39
 J gh n S 38
 K dj r M K 399
 K m e M 357
 Ka s A B 3 4
 K pl n I I 1
 K e F E 1 3
 K th S r A 41
 K ll R 09
 K ll gg F S 4
 K dall E C 7
 K m R 87
 K J D 373
 K l L 7
 K y B W 3
 K y E 5 3
 K y Ab g K 9
 Kid er F C
 Klif E J 495
 Kull J A 357 495
 K l la T I 40
 K l la V J 46
 K l by D B 4
 K lln B R 27 375 39
 K l chm dt 49
 K l z O 1
 Koch J 28
 K P
 K hle A 8
 Koo tr A R 8
 K pp J G
 K r nbl m K 2
 K o m k G W 7 99
 Kram r S E 49
 Kr k H 4 6
 Kr t chm H L 6
 Kr tzm H A R 8
 493
 Ku tz A 369
 K n z H 95
 K rzrok R 4 6
 K tt er T T 94
 Lac ture J 399
 La w A 306
 L h y F H 464
 La dl y J W S 300
 Lambkin E C 45

- Lambrinudi C 132
 Landa P A 480
 Lapointe A 19
 Larmore J W 21
 Laroche G 194
 Latzko W 487
 Lawson Sir A 61
 Layton T B 6
 Lecène 501
 Lee F C 179
 Lee W L 457
 Lee Brown R K 300
 Legueu 38
 Lehman E P 42
 Lehmann H 472
 Lenormant C
 Leonard V 228
 Leone P 287
 Lepoutre C 29
 Jepper E H 406
 Lerche W 371
 Leriche R 102 137 501
 Levine M I 37
 Lévy G 182
 Lewis D 140 19 449
 Lewis F P 259
 Lewis W H 143
 Lewinohn R 187
 Liebert E 11
 Liepmann W 480
 Lierle D M 5
 Lijó Pavia J 260
 Lahenthal H 34
 Lillie H I 361
 Lillie W I 365
 Lion G 316
 Lister Sir W T 261
 Litvak S 93
 Lockwood A L 36
 Loeffberg O 421
 London Medical Soc ety 272
 Lord E M 403
 Loubat 267
 Lower W E 125 127
 Lowman C J E R 41
 Lowley O S 497
 Lu mbuehl M 460
 Luhnmann K 96
 Lupton I M 7
 Lusskin H 105
 Iyman H W 262
 Lynch F W 98
 Lvnch J M 5
 MacAuley C 39
 MacCarthy W C 512
 MacDowell F C 403
 MacKenzie D W 13 490
 Mckenzie G W 262
 MacLean H 465
 MacLennan A 189
 MacMurchy H 402
 Macrae D Jr 195
 Magath T B 493
 Magnant J S 453
 Mallet Guy P 15
 Mandelbaum M J 183
 Mann F C 468
 Marion 302
 Marogna P 13
 Marriott Mck 5
 Martin E C 368
 Martin K A 17
 Martin La al 39
 Martland M 496
 Mason J T 101
 Mason M I 18
 Massart 416
 Masé I 399
 Mas on J C 112
 Mathe C P 404
 Mauclore 19
 Ma rodin D 137
 Maxwell A F 399
 Mayer 300
 Mayer E 58
 McCreedy J H 448
 McCutchen L G 222
 McFarland J 272
 McIndoe A H 387
 McPheeters H O 136
 McQueen J D 94
 McQueen J M 57
 McClaren C S 158
 McWhorter C L 460
 Meaker S R 397
 Mechnin C C 4
 Meill e J 47
 Meisen W 53
 Melaney F I 33
 Melville S 19
 Mentzer S H 28
 Metz H 403
 Messeloff C R 50
 Meyer A W 504
 Meyer J L 101
 Michon E 10
 Mikels I M 393
 Milch H 420 510
 Miles W I 2
 Miller T M W 475
 Miller C J 197
 Mille F G Jr 46
 Millul G 502
 Moeguet F 50
 Moersch F I 365
 Moersch H J 273
 Moller W 213
 Moniz E 136
 Moore B H 419
 Moore C U 475
 Moo e G A 40
 Moore I 13
 Morea R 453
 Morgan O G 358
 Morris J H 15
 Morrison L F 273
 Morse J I 458
 Morson A C 41
 Mosher G C 205
 Mosher H P 37
 Moszkowicz L 502
 Motz G 122
 Mouchet 52
 Moulouguet P 356
 Moutier I 276
 Mouyihan Sir B 473
 Muller G P 195
 Muro I 220
 Murray G R 92
 Mussey R D 483 484
 Mu enck P 89
 Naumann H 462
 Na arro 469
 Neill T I 55
 Nel on R F 6
 Nelson S H 175
 Nesh T W 97
 Neugebauer F 6
 New G B 36
 Newell I S 05
 Nicholson B B 42 5
 Nickel A C 461
 No nchi H 3
 Nord O A 294
 Nordmann O 7
 Novak F 113
 Nové Jossender C 49
 Ny trom G 463
 Oelsner A 97
 Oddy H M 54
 Odellberg A 17
 Odenthal W 290
 O Donovan W J 35
 Okinczy c 90
 Olanc y c J 19
 Olch I S 384
 Ol ecrona H 310
 Oliver K S 61
 O baan C 1
 Orlando R 454
 Ormond J K 493
 Os ood R B 132 309
 Osh C 480
 O en H I 28
 Pala zol 38
 Palmer A C 303
 Pamperl F 46
 Pancoa t H K 13 453
 Paolucci F 10
 Papin F 40
 Papin W 112
 Paramo e I H 483
 Parker D W 98
 Pa k e r W R 60
 Parol G 114
 Pasteau 39
 Pater on D 75
 Paterson J V 359
 Pater on J 375
 Paton J H I 3
 Pat el c K V 4
 Paulson M 4
 Pautrier L M 182
 Pa i J I 4
 Pearce H I 50
 Peet M W 269
 Pemberton J def 500
 Pend grass J I 113
 Penfield W 10 1 2 0
 Perdon 104
 Pere A 9
 Perman I 468
 Permar H I 131
 Perrin W S 36
 Persson M 17
 Peter G 230
 Peterson R 113 00
 Petit R 395
 Peynet A 356
 Pfab B 308
 Pfahler C I 230
 Pfeiffer D B 64
 Piccardi T J 1
 Pick L 410
 Pickhardt O C 371 38
 Pcot 9
 Pie C 80
 Person P H 97
 Pierson R 3
 Pilet 40
 Pines W 88
 Platou F S 31
 Polacco L 94
 Polak J O 109 394 480
 Pomeroy I A 29
 Porehner P 6
 Po tman G 1 80 1
 Portmann U 93
 Post M H 509
 Pototschnig G
 Pou et F 49 3
 Prati M 46
 Pratt J I 106
 Proby H 80
 Puccelli V 29
 Puccini L 292
 Puente J J 454
 Pu h W S 13
 Putti V 134 40
 Quick D 369
 Quinby W C 40
 Rados I 773
 Ramirez Corra 456
 I amond I 99
 Pascol 49
 Pa ault I 3
 Ra zaboni C 106
 Rebattu J 87
 Redway L D 358
 Reese A B 14
 Reischauer 467
 Remer J 14
 Reynold F I 430
 Rhenier J 488
 Rich ard J H 88
 Riehoff W I Jr 449
 Rigano I r rera D 109
 R hetti L 46
 R smann I 03
 R t E 45
 Ritvo M 100
 P ière M 488
 Robert I I 499
 Robert J T 215
 Robineau g 366
 Robins S A 307
 Robinson V 16
 Roenne H 4 260 359
 Roffo V H 47
 Ro ers W H 217
 Roller V 413

- R l ck H C 408
 Roque F 46
 Rose w L C 357
 Ro bacheff S 8
 Rouv è e H 376
 Ro c Berget J L 30
 Rowlands M J 47
 R w l ds R P
 Rownt e L G 6 387
 Rub n I C o 396 478
 Ruck M P 06 96
 Rud E 98
 Ru S 58
 Ryerso E W 49 41
- Sa h L 5
 S g W W 363
 S mp J A 1
 Scal n J 80
 S a fl J E 372
 Sch e f r W 3 5
 Schaff A J
 Schall LeR 83
 S h uffler R M L 3
 S hl n e P 385
 S hlunk H H 398
 Sch litz F W 377
 Schm dt H 57
 S humeden 8 8
 S humegel L 63
 Schmt H 98
 chout D
 Sch b M 4
 S h mach r l 6
 b h mann l 1 3
 S h w F 465
 S hwe e l 4
 Scott G M 59
 Scott W W 4 6
 Scudd r C L 4 8
 Seco A C 464
 S c è t n M 4 4
 S gu v 9
 Sequ a J H 3 5
 S ré l b 3
 S ymo H F 48
 Shamb gh G E 5
 Sharpe W 365
 Sha W 3
 Sh w W F 3
 Sh ld R F 96
 Sh r ood W 1
 Sh y A M 3 33
 Sh t A R 78
- Sh ste B H 67
 S db ry J B 6 55
 Segel I A 35
 S meon 455
 S m n F 265
 S mo H E 397
 S m T H 379
 Sistrul W L E 363
 Slat r J K 456
 Slye M 4
 Smth L A 377
 Smth R 4 1
 S nyth D C 183
 Smyth 1 M 5 5
 S n l A M 6 387 388
 S mb g J S 75
 S n en b n H 3 5
 S ma M C 68
 So la A 457
 S pa l t R 47
 S w A 359
 Spe d K 4 8
 Spe 1 W 475
 Sp w E
 Spr ch 97
 Spr ll H 89
 Srok l w N N 4
 St l g r 86
 St bb n G F 34
 St i be 1 M E 53
 St ha dt B
 St ph 1 R 384
 Ster W G 5
 St W L 496
 Stew t J P 75
 St t W J 385
 St n H B 4
 St n W S 6
 St k P 44 54
 St l L 54
 S th la d C G 498
 S tt H B 5 0
 S wet J r 9
 S ft C W 67
 S m L K 47
 S ym d C P 75
- I k hash 1 39 4
 T 9
 T p J 375 474
 T r J 6
 T 3
 T ylo F B 464
 T ylo R G 4
- Tebbutt A H 78
 Th lh m r M 467
 Thom s B A 15 4 1
 Thoma G J 49
 Thoma H M J 449
 Th mp o G H 7
 Thomp o T r 1
 Thomp W 385
 Thomson S St C 66
 Th m n W lk S J 8
 Todd T W 409
 T l nd C L 473
 T ok F T 447
 T k L 358
 To a L 500
 Tow t D 36
 Town E B 455
 Troell A 44 9 449
 Tro J 7
 Trotter W 83
 Tru dal P E 3
 T l G 457
 T S 37
- Uphely J 4 4
 Ullm n H J 4 3 6
 V n Luke W B D 484
 V n D W ld be 6 L 36
 V n H J 1 26
 V l d 9
 V u M v 0
 V bry k J R J 88
 V ryp C D 447
 V st egh C 75
 V dg ff I J 88
 V l h 5
 V l to M 9
- W e H I 5
 W k l C P G 4 5 4
 W lk A 392
 W lk K M 45
 W ll J O 3
 W ll V G H 398
 W lm l T 4
 W lte A B 5 7
 W l t rs W 386
 Walt A J 83 45
 W g t n O H 39
- Warthe H J Jr 25
 Wasson W W 14
 W ts n B P 36
 W tt J C 6
 W gh G E 3 9
 Wa h T R 123
 We ll Sp R 90
 W nb M 5 8
 W nt b M 5
 W erl E 99
 W 1 J F 388
 W rauk H 486
 W s S 00
 W k ld B 409
 W o M B 45
 W th H 8
 Wh cl S W I D C 385
 Wh ppl A O 7
 Wh t h e B 4
 Wh tt mor W 373
 W k M 06
 W dm B P 3
 Wldbolz H 4
 W lk A L 39
 W lk D P D 9
 Will ams n G S 88
 Will am n H C 399
 Will B C 474
 W lm r W H 358
 W lm th C L 5
 W lo J St G 36
 W l P D 4
 W n l V 3
 W nt H L 60
 W m ck N 1 14
 Wood F C 14
 Woodhill V R 178
 Wool v J H 466
 W l to W H 8
 W ht R E 74
 W d m n H 74
- Y m m t T 9
 Y t W M 5 1
 Y dk A M 4
- Zad k I 3 5
 Za t H 97
 Zeyl nd J 30
 Z liboo G 487
 Zann W r 84
 Zubuz et H 90
 Zuca ll J 5 5

